

1 **Abstract**

2 **Introduction:** Over 5 million children attend the Emergency Department (ED) annually
3 in England with an ever-increasing paediatric emergency caseload echoed globally.
4 Approximately 60% of children present with illness and the majority have non-urgent
5 illness creating burgeoning pressures on children's ED and this crisis resonates globally.
6 To date no qualitative systematic review exists that focuses on the parental reasons for
7 childhood attendance at the ED in this subgroup.

8 **Aim:** To identify parental reasons for attending ED for their children presenting with
9 minor illness.

10 **Method:** A qualitative systematic review was conducted against inclusion/exclusion
11 criteria. Five electronic databases and key journals were searched in June 2015.

12 **Findings:** 471 studies were identified and following study selection, 4 qualitative studies
13 were included. Nine themes were identified e.g. dissatisfaction with family medical
14 services, perceived advantages of ED and 'child suffering' with novel and insightful sub-
15 themes of 'hereditary anxiety', 'taking it off our hands', ED as a 'magical place'.

16 **Conclusion:** This novel qualitative systematic review examined parental attendance
17 presenting with childhood minor illness of interest to emergency care reformers and
18 clinicians. ED attendance is complex and multifactorial but parents provide vital insight
19 to ED reformers on parental reasons for ED attendance in this sub group.

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23 **Keywords:** Parental reasons; Minor illness; Non-urgent; Attendance at ED; ED utilisation;
24 Qualitative studies

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26

1. INTRODUCTION

27

28 The demand for urgent healthcare services is increasing, and the pressure on Emergency
29 Department (ED) is of significant concern globally (Amiel *et al.*, 2014). EDs are visited
30 annually by almost 5 million children in England, United Kingdom (UK) Health and Social
31 Care Information Centre (2016). There are diverse rates of non-urgent ED visits
32 internationally ranging from 39.9% in Belgium among 3117 children (Benahmed *et al.*,
33 2012), 40% in England (Ismail *et al.*, 2013), 52.8% in Australia (Unwin *et al.*, 2016),
34 57% in Italy (Vedovetto *et al.*, 2014) and 58% in the United States of America (USA)
35 (Kubicek *et al.*, 2012) suggesting the international significance of ED paediatric
36 attendance. The term 'minor illness' refers to non-urgent cases of common childhood
37 illness which can be treated by simple medication or which need no treatment. Carey
38 (2009) defined acute minor illness as ordinary health problems, for example non severe
39 but prevalent respiratory and gastrointestinal infections in children which do not require
40 admission. The usage of EDs by patients with minor illness is an important and still
41 unresolved problem causing a burden to health services (Lega and Mengoni, 2008).

42 Increased usage of ED causes complex issues e.g. patient density, increased workload
43 (Benahmed *et al.*, 2012), increased cost, raised staff attrition (Unwin *et al.*, 2016), and
44 risk to quality of care in ED. Consequences of using ED for non-urgent conditions include
45 patient dissatisfaction, demand on ED staff, longer waiting times and delays in care
46 (Derlet and Richards, 2000; Hedges *et al.*, 2002; Hobbs *et al.*, 2000). Children
47 presenting with a minor illness as self-referrals can often be appropriately and safely
48 managed in a primary care setting (Hendry *et al.*, 2005; Phelps *et al.*, 2000). However,
49 there is evidence that some parents do not attempt contact with their GP prior to
50 emergency department attendance (Benahmed *et al.*, 2012; Hendry *et al.*, 2005).

51 These studies focused on people's choices e.g. Jaarsma-van Leeuwen *et al.* (2000) and
52 Shearer *et al.* (2015), however to date no systematic review has focused on parental
53 reasons for visiting ED in this sub group.

54 **Aim and Objective**

55 This systematic review identifies parental reasons for visiting ED for their children presenting with
56 minor illness via thematic synthesis of qualitative data.

57 **2. METHODS**

58 A qualitative systematic review was conducted against inclusion/exclusion criteria (Table
59 1) according to PRISMA guidance (Moher *et al.*, 2009). No restrictions were placed on
60 designs of studies, publication date or country of origin. 'Parents' are defined as anyone
61 who has a child or children aged < 18 years without considering gender and parental age
62 to minimise selection bias Joanna Briggs Institute (2014). Studies published in English
63 were considered for inclusion.

64 Five electronic databases (Medline, Embase, CINAHL, PsycINFO, PubMed) and two
65 journals (Emergency Medicine Journal and Pediatric Emergency Care) were searched in
66 June 2015. The following search strategy was applied to aforementioned databases:
67 (Parent* OR carer* OR caregiv* OR famil*) AND (Child OR Children OR infant* OR
68 Adoles* OR P?ediatric*) AND (Minor illness OR non-urgent OR non-emergency OR non-
69 critical OR non-essential) AND (Emergency services OR emergency department OR
70 accident and emergency OR p?ediatric OR A&E OR ED attendance OR attendance ADJ
71 (ED OR A&E OR PED) OR ED utilization). Study selection included title, abstract and full-
72 text sifting and removal of duplicates. Reference lists were further checked for additional
73 references. Quality appraisal of resulting included studies was conducted using the JBI
74 Qualitative Assessment and Review Instrument (QARI) (Joanna Briggs Institute, 2014)
75 by a primary (AB) and secondary reviewer (PH), consensus was reached via discussion.
76 The results of quality assessment of included studies is presented (Table 4). Thomas and
77 Harden's (2008) thematic analysis framework was applied to the qualitative data: 1) the
78 coding of the text 'line-by-line'; 2) the development of 'descriptive themes'; 3) the
79 generation of 'analytical themes' to synthesise the data. The Figure 2 illustrates an
80 example of how the themes were derived.

81 **3. FINDINGS**

82 **Study Selection**

83 The searches yielded 471 studies and citations were exported to EndNote X6 reference
84 manager software and duplicates were removed. A PRISMA flow diagram of the study
85 selection process is presented in Figure 1. Rationale for exclusion at full text sift are
86 presented (Table 5).

87 **Study Characteristics**

88 The 4 included studies were published between 2003 and 2010; three of which were
89 conducted in the USA (Guttman *et al.*, 2003; Berry *et al.*, 2008; Graham *et al.*, 2010)
90 with one study conducted in the UK (Chin *et al.*, 2006). A range of qualitative
91 methodologies were embraced; a prospective mixed-method study (Graham *et al.*,
92 2010), (only qualitative data were extracted), qualitative ethnography (Berry *et al.*,
93 2008), grounded theory (Guttman *et al.*, 2003), generic qualitative work (Chin *et al.*,
94 2006). Data were collected via semi-structured interview (Chin *et al.*, 2006; Berry *et al.*,
95 2008), qualitative telephone interview using a structured guide (Graham *et al.*, 2010),
96 and face-to-face interview with open/closed ended questions (Guttman *et al.*, 2003). The
97 sample size was 10 families (Graham *et al.*, 2010), 31 families (Berry *et al.*, 2008), 12
98 families (Chin *et al.*, 2006), and 331 paediatric users out of 408 ED users (Guttman *et*
99 *al.*, 2003). Table 3 shows the characteristics of included studies. Fifty-six participant
100 quotations were extracted from all the included studies and their level of credibility
101 identified by follow JBI degree of evidence. All these quotations were coded and the
102 process resulted in identified 33 sub-themes and 9 main themes following thematic
103 analysis (Table 6). The quality of the included studies was overall good based on the
104 quality assessment scoring from 7/10 - 9/10 (Table 4). All the included studies had
105 obtained ethical approval from an appropriate body.

106 **Parents' Psychological Impact**

107 One of the reasons for coming to an ED with childhood minor illness reflected their
108 feelings regarding their child's condition. Seven sub-themes emerged: worry about child

109 health; worry about delayed recovery; worry about complications of illness; ran out of
110 ideas for self-care; feeling frustrated, fearful, and anxious; hereditary anxiety; and first-
111 time parenting.

112 **Many parents were reported to state that** their worries for their children affected their
113 decision to visit an ED. Parents were concerned about delayed care preferring ED rapid
114 treatment and wished to avoid anticipated complications. Parents reported feeling
115 nervous, frustrated, fearful and anxious. In some cases, parents felt that there was
116 nothing further that they could do to self-care for their children (Graham *et al.*, 2010,
117 p.252): "*We were nervous, we were afraid, we really didn't know what was causing it,*
118 *and what we could really do?*"

119 Hereditary anxiety affected parental attendance decisions. This echoes parental concern
120 for their children presenting with the same illness as a sibling or other family member
121 because of a family history of illness: "*Our family has a history of diabetes, I mean that*
122 *was one of the reasons I brought her in.*" (Graham *et al.*, 2010, p.252). **Some parents**
123 **are worriers by personality so their hereditary anxiety led them to use ED.** Additionally,
124 first-time parenting influence ED attendance due to lack of experience caring for a sick
125 child. Parents reported not to take responsibility for waiting at home and instead self-
126 referred to ED.

127 **Dissatisfaction with Primary Healthcare Services**

128 Six sub-themes emerged: dissatisfaction with GP services, staff attitudes,
129 communication problems, giving unclear information to parents, mistrust, and ethnic
130 differences. Dissatisfaction with primary healthcare services is another reason for using
131 an ED. If patients are not satisfied with their primary healthcare provider or with
132 treatment that they have received, it is more likely that they will not revisit these
133 services. These issues were illustrated from one participants' perspectives in **Berry** *et*
134 *al.*'s (2008, p.362) study as: "*The information people ... and like some of the doctors ...*
135 *they have bad attitudes there, really bad, it's ridiculous.*". **Parents were reported to state**

136 **that** staff gave unclear information to parents which was not helpful for **parents**.
137 Negative staff attitudes in the community positively influenced parents' decisions to
138 attend ED rather than revisiting services in which the parents had experienced
139 difficulties. Patients tended to communicate with staff who have good communication
140 skills, who help them, who give clear and understandable information, and who show an
141 interest in patients' conditions. **One participant in Berry et al.'s (2008, p.363) study**
142 illuminated these issues driving ED attendance by saying: *"I called this morning to ask if*
143 *she could be seen [by a family doctor], and [the person I spoke with] was not really*
144 *clear on what I should do. She wasn't helpful. She confused me even more."*

145 Mistrust of primary care services might affect the usage of an ED for minor illness. **It was**
146 **reported in the UK that ethnic differences** might affect the relationship between the
147 patients and family doctors. **One participant in Chin et al.'s (2006, p.24) study said: It's**
148 **a black-white thing. They [black families] think that white women don't know what is**
149 **healthy for black children. White doctors don't understand black diets."** Hence, parents
150 did not tend to use services which display negative relationships in terms of ethnic
151 differences.

152 **Advantages of ED**

153 The findings in this theme were the most commonly cited reasons for attendance at an
154 ED. The theme includes nine sub-themes: quality of care, ED facilities, no appointment
155 required, qualified doctors/staff, efficiency, waiting time, quick to get treatment, easy to
156 get result, and parents' preference.

157 Many parents explained their reason for coming to an ED because of the expected
158 quality of care that is given in an ED. They imbued ED with magical qualities. One parent
159 in **Berry et al.'s (2008, p.363) study described an ED as: "They do a better check-up and**
160 **they give them better medicine."** In addition, parents see ED setting a 'magical place'.
161 **One parent in Graham et al.'s (2010, p.253) study described an ED as: "You know, it's a**
162 **magical place. Next time I'm bringing her after one day because right after we go, it**

163 *always works out the same, [the illness] stops*". Therefore, previous experience in ED
164 affected their belief regarding the anticipation of better treatment.

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166 treatment.

167 A further finding revolved around ED's facilities and resources. Many parents perceived
168 that an ED has more and higher quality facilities and resources, therefore, they
169 anticipated that they would receive quality care when they visit an ED. A participant in
170 Guttman *et al.*'s (2003, p.1104) study supported that in an ED they "*could get the most*
171 *complete care.*"

172 Moreover, the findings of this review revealed that qualified doctors/staff in ED and
173 efficiency of ED influence parents' decision to visit an ED. Parents believed that an ED
174 has more skilled staff and their GP had a lack of knowledge regarding children's health,
175 making it more likely that they will visit an ED. One participant in Berry *et al.*'s (2008,
176 p.363) study confirmed: "*[The ED] has a trained staff for children, which makes it*
177 *better. You have a better interaction with children than if you go to just any clinic,*
178 *because I think you guys are prepared for children.*" Moreover, the review findings
179 showed that ED services do not require an appointment and therefore patients had a
180 wider sense of access. In addition, some parents might not make the effort to get an
181 appointment with their GP because they might get treatment at an ED guaranteed
182 without an appointment. One participant in Berry *et al.*'s (2008, p.363) study confirmed
183 these issue: "*You don't have to have an appointment, just come in.*"

184 **Difficulties with Getting an Appointment**

185 Two sub-themes emerged from this main theme: unable to get an appointment, and
186 unable to wait further. Some parents tried to get an appointment with their GP but,
187 there was no available appointment. Sometimes, the child's condition had worsened, and
188 in this case parents could not wait for an appointment, so they visited an ED. One

189 participant in Berry *et al.*'s (2008, p.362) study said: "*If I would have made an*
190 *appointment, I would have had to wait until next week Tuesday, or go to urgent care.*".
191 In addition, the findings indicate a juxtaposition of parental perception of family doctors
192 being sometimes too busy and unable to see patients and their own parental inability to
193 take time off work. Berry *et al.*'s (2008, p.363): "*I called the doctor's officeand I*
194 *couldn't wait until Wednesday because I work second shift, and I can't afford to take off*
195 *work, with all my children. That's why, of course, I'm here*".

196 **Reassurance**

197 Two sub-themes emerged: reassurance and the importance of a precious child. This
198 theme can be relative to the notion of parental responsibility. Some parents prefer not to
199 take sole responsibility for the medical status of their children; they prefer to visit an ED
200 in order to make sure that 'everything is all right'. Also, parents expressed their need for
201 reassurance because of children's' inability to fully explain their complaints. Two
202 participants in Guttman *et al.*'s (2003, p.1099) study explained their need for
203 reassurance as: "*Children can't tell you what's wrong, and parents want to make sure*
204 *everything is OK.*" and "*To make sure everything is OK.*"

205 The emotional importance of children to parents was also a driver of ED attendance.
206 Parents are worried about their children and therefore they want to get treatment as
207 quickly as possible in order to be reassured. First-time parents in particular reported
208 increased tendency to need reassurance. It was perceived that visiting an ED can
209 sometimes can be the quickest way to receive treatment. Guttman *et al.*'s (2003,
210 p.1099) study commented on this issue: "*Quickest way to find out what's wrong*
211 *[because the] child is extremely important to you.*".

212 **Access Issues**

213 Access issues affect parents' decisions to use an ED. Readiness to give care, and
214 convenience of ED were two sub-themes emerging under access issues. The ED's
215 services open access policy influenced parents' decisions towards ED attendance. Berry

216 *et al.'s* (2008, p.363) study explained that: *"The hospital seems to see you a little*
217 *quicker than the private doctor's office. You don't have to have an appointment, just*
218 *come in. I wouldn't call it emergency, I just call it ... ready-care."* Also, convenience of
219 ED **was reported by parents** as a reason for using ED. The ED was reported to be closer
220 to patients than their GP. Also, the available means of transportation could be more
221 suitable and lead to visiting an ED rather than a GP. *Berry et al.'s* (2008, p.363) study
222 confirmed this very succinctly: *"I figured it would just be easier to come here."*

223 **Referral Prediction**

224 The review findings displayed that some parents are not referred by their GP because
225 they did not try to contact their GP but because parents predicted that they would be
226 referred by the GP. One participant in *Berry et al.'s* (2008, p.364) study confirmed this:
227 *"Well, we'll have to call her and then she'll tell me what I have to do about it, but I'd*
228 *rather just come here [to the ED] and get it over with."*

229 **Suffering from illness and pain**

230 Two sub-themes emerged: relief from pain and not able to cope with the severity of
231 symptoms. The findings of this review indicated that pain manifesting in minor illness
232 was a driver for ED attendance. One parent in *Guttman et al.'s* (2003, p.1098) study
233 said that: *"Getting relief for what is bothering the child or relieve the pain"*. In some
234 cases, parents might not be able to deal with the severity of pain by themselves. One
235 parent in *Graham et al.'s* (2010, p.252) study explained: *"Our child had been vomiting*
236 *and diarrhea ... vicious vomiting and diarrhea ... He was screaming in pain"*.

237 **Out of Hours**

238 This main theme comprises two sub-themes: the inability to take time off work and out
239 of hours. The review findings emphasized that primary care services are not always
240 open, therefore parents choose an ED out-of-hours as EDs are open 24-hours a day. This
241 issue was supported by two participants in *Guttman et al.'s* (2003, p.1102) study:
242 *"Nothing else is open."* and *"Nowhere to go this late."* Moreover, being unable to take

243 time off work was another reason for choosing an ED. This is related to availability of
244 parents and limited access time for a GP visit. Parents brought their children to an ED
245 since they would not be able to get an appointment from primary care services in the
246 morning before going to work. In these cases, parents do not have many options to
247 choose from, so they use an ED for their children because of the unavailability of other
248 services. One parent in Berry *et al.*'s (2008, p.363) study confirmed this: "... I work
249 second shift, and I can't afford to take time off work, with all my children. That's why, of
250 course, I'm here."

251 The nine main themes identified were grouped into two further categories; Human
252 determinants were parents' psychological impact, dissatisfaction with staff, reassurance,
253 referral prediction, and suffering from illness/pain. Human determinants can be parents'
254 psychology, feelings, anxiety, level of concern, reassurance needs, health literacy, ability
255 to cope with severity of symptoms, dissatisfaction issues, and suffering from illness.
256 These human determinants affect parents' decisions to visit an ED for children with
257 minor illness.

258 System determinants were advantages of ED, difficulties with getting an appointment,
259 access issues, and out of hours. System determinants were ED facilities, qualified staff in
260 ED, ED working hours, appointment issues, access issues, means of transportation,
261 distance to home, and out-of-hours primary healthcare service policy. The human factors
262 conflict with system determinants because in everyday family life we are subject to our
263 own agency and life issues impact on structural system issues. This apposition influences
264 parental decisions to visit an ED for children with minor illness.

265 **4. DISCUSSION**

266 The findings of this qualitative systematic review highlight the diversity of determinants
267 that lead parents to attend an ED with children presenting minor illness. Novel themes
268 such as 'ethnic differences', 'hereditary anxiety', 'taking it off our hands', ED as a
269 'magical place' have emerged.

270 The review findings support that ED attendance in this sub group is a multi-faceted
271 complex issue. Parental psychological impact on ED attendance (Graham *et al.*, 2010;
272 Guttman *et al.*, 2003; Berry *et al.*, 2008) was significant in this review. In contrast, this
273 theme was not identified by Amiel *et al.*, (2014) study which looks at why patients with
274 minor illness attend to ED. Anxiety about hereditary conditions emerged from this
275 review. Psychological factors may underpin a heuristic intuitive decision to attend ED
276 rather than a logical decision because of parents' anxiety, fear frustration and
277 nervousness as some parents are worriers by personality. More research is required to
278 identify the determinants from parental perspectives but it is vital to avoid categorising
279 attenders as inappropriate if ED attendance rates are to reduce and instead examine the
280 decision making processes of these attenders.

281 The finding that ethnic differences might affect the relationship between the patients and
282 GPs emerged from Chin *et al.*'s (2006) study alone and has not been identified in
283 previous studies and may reflect ethnocentric issues in the study's country of origin.
284 However, the theme of dissatisfaction with staff concurs with Amiel *et al.* (2014), Hendry
285 *et al.* (2005), and Williams *et al.* (2009). Enhancing sensitivity to ethnic diversity in the
286 community may address this. Nursing staff commonly have greatest contact with
287 parents and can ensure that parents have a positive user experience.

288 The determinants regarding the advantages of an ED for attendance were commonly
289 cited and concur with several studies (Amiel *et al.*, 2014; Hendry *et al.*, 2005; Phelps *et al.*,
290 2000; Northington *et al.*, 2005; Shearer *et al.*, 2015; Howard *et al.*, 2005; Palmer *et al.*,
291 2005). Despite prior evidence e.g. Lega and Mengoni (2008) and Maguire *et al.*
292 (2011) difficulties with getting a GP appointment did not appear in the review to the
293 extent expected. This concurs with Hemingway *et al.*'s (2008) predictive case control
294 study of parents in an equitable sub group of 472 parents which showed that GP contact
295 was not a strong predictive factor for ED attendance from a parental perspective.
296 However, out of hours care for minor illness emerged from two included studies
297 (Guttman *et al.*, 2003; Berry *et al.*, 2008). Parents often work during office hours and

298 they might not be able to take time off work or do not want to miss time from work. The
299 findings of the review support those of Palmer *et al.* (2005), and Phelps *et al.* (2000).

300 Access issues emerged with some parents perceiving ED as 'ready care'; their decision
301 was not centred on seeking specific treatment but ED's readiness was manifest.
302 Participants in A. Wood and Cliff (1986) early study mentioned that an ED provides a
303 twenty-four hour service, and parents could guarantee receiving treatment there, as
304 opposed to trying to contact their GP. The findings from this theme concur that 'ready-
305 care' remains a contemporary issue.

306 Reassurance emerged from two of the included studies (Guttman *et al.*, 2003; Graham
307 *et al.*, 2010). According to Stanley *et al.* (2007), reassurance is the most common
308 reason for using ED services. On the contrary, reassurance was not identified as a
309 determinant in the other two included studies (Berry *et al.*, 2008; Chin *et al.*, 2006).
310 Parents anticipate referral to ED by their GP, by other primary health carers, or advised
311 by significant others. There is anecdotal evidence that parents bypass their GP for
312 attending ED since they predict that they will be referred. Whilst previous adverse
313 experiences regarding GP referral affects parents' behaviours in terms of visiting an ED
314 directly coincided with several studies (Williams *et al.*, 2009; Phelps *et al.*, 2000; Stanley
315 *et al.*, 2007; Palmer *et al.*, 2005).

316 Suffering from pain emerged from two included studies (Guttman *et al.*, 2003; Graham
317 *et al.*, 2010). Children suffering from pain drive parents to visit an ED in this non urgent
318 sub group. It is known that parents assess their child's condition as being most
319 appropriate for visiting an ED rather than a GP (A. Wood and Cliff, 1986; Palmer *et al.*,
320 2005). This theme agreed with Hemingway *et al.*'s (2008) predictive data, supporting an
321 enduring call for improved pain assessment and management services for children in the
322 community within urgent and primary care systems.

323 **Strengths and Limitations of the Review**

324 One of the strengths of this review is that the findings emerged from four studies and
325 the findings cover many of the expected facets of the phenomenon under scrutiny. By
326 synthesising the qualitative data novel findings have emerged which are greater than the
327 four papers examined alone. Also, there were no restrictions regarding date and origin of
328 the studies, and the review covered all parents without considering their age or gender.

329 Despite these strengths only studies reported in English were admitted for inclusion so
330 some potential studies may have been missed in relation to the phenomenon.
331 Subsequently this review **may be maybe** centric to westernised countries; a call for
332 reviews in developing **countries** endures. However, the review is considered
333 representative of the USA and UK ED systems.

334 **5. CONCLUSION**

335 This is the first known qualitative systematic review examining parental attendance in
336 this area, which should be of interest to emergency care reformers, urgent care
337 commissioners, researchers and ED clinical staff. This review further informs
338 understanding of parental rationale for visiting ED for childhood minor illness. **Parental**
339 **reasons for visiting ED with children presenting with minor illness were identified. These**
340 **are parents' psychological impact, dissatisfaction with primary healthcare services,**
341 **advantages of ED, difficulties with getting an GP appointment, reassurance, access**
342 **issues, predict to referral to ED, suffering from illness and pain, out of hours.** Further
343 research on parental decision-making is urgently required to address the rise in ED
344 attendances- until that point parents will continue to vote with their feet and attend ED
345 to meet their needs.

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