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1 The Effect of Healthcare Professional Disruptive Behaviour on Patient  
2 Care: A Systematic Review

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19 The Effect of Healthcare Professional Disruptive Behaviour on Patient Care: A Systematic  
20 Literature Review

21 **ABSTRACT**

22 **Background:** Disruptive behaviour amongst healthcare professionals can adversely affect  
23 patient care. These behaviours undermine cultures of safety, exposing patients to  
24 preventable risk. Existing evidence associates disruptive behaviours with a negative effect at  
25 the organisational level and on healthcare professional but the effect on patient care has  
26 been less well documented.

27 **Objectives:** To identify and synthesize the empirical evidence of healthcare professional  
28 disruptive behaviours on the following outcome measures of patient care: clinical outcomes,  
29 patient safety, patient satisfaction or quality of care.

30 **Methods:** A systematic literature review was conducted. Between June 6<sup>th</sup> and July 23<sup>rd</sup>,  
31 2019, six databases were searched for published empirical studies that examined disruptive  
32 behaviours and patient outcomes. Excluded from this pool were studies that did not make  
33 associations with patient care. Studies were analysed using thematic analysis.

34 **Results:** 25 studies met the inclusion/exclusion criteria and were included in the review.  
35 The prevalence and type of disruptive behaviour varied but it consistently contributed to a  
36 reduction in the quality and safety of patient care. The effect on patient care was  
37 manifested through adverse incidents, neglect of care-needs, never events and complaints.  
38 Disruptive behaviours significantly impaired the safety culture leading to reduced patient  
39 safety, evidenced by worse clinical outcomes.

40 **Conclusions:** Disruptive behaviours amongst healthcare professionals are a significant  
41 threat to patient safety and quality of care. Organisations must harness the benefits of  
42 awareness programmes, policy and interventions to generate a culture change where these  
43 behaviours are not accepted, thereby protecting patients from preventable harm.

44  
45 **INTRODUCTION**

46 Concern about the effect of disruptive behaviours (DB) in healthcare has been gaining  
47 traction since the American accreditation body, The Joint Commission (TCJ), published in

48 2008 new standards aimed at addressing DB amongst healthcare professionals (HCP) <sup>1</sup>.  
49 Research shows DB to be a pervasive problem, with 92.5% of HCP having experienced or  
50 witnessed DB in the workplace <sup>2</sup>. DB effects

51 HCP's well-being <sup>3</sup>, it increases healthcare costs <sup>4,5</sup> and negatively affects staff retention  
52 and job satisfaction <sup>2,6</sup>.

53 DB is an umbrella term that captures any inappropriate behaviour by HCP that has the  
54 potential to undermine a culture of safety or jeopardise quality healthcare delivery <sup>1</sup>. This  
55 encompasses a variety of behaviours or confrontations ranging from non-collaboration,  
56 verbal abuse to physical or sexual harassment. DB includes but is not limited to bullying,  
57 incivility and horizontal/lateral violence. Although the definitions of all these negative  
58 behaviours overlap, they do possess individual characteristics <sup>7</sup>. Previous literature states  
59 that persistent, low-level behaviours which are often normalised in everyday clinical settings  
60 are just as harmful as the higher intensity behaviours <sup>8,9</sup>.

61 Regulatory bodies in Canada and the United States of America (USA) have developed system  
62 level frameworks for recognition and management of HCP DB <sup>1,10</sup>. Whilst no such  
63 frameworks were found for other developed healthcare systems, studies from Australia,  
64 New Zealand and the UK suggest that prevalence of DB is similar in other settings <sup>11-13</sup>. In  
65 the UK, the most recent NHS staff survey reported an increase in bullying from managers  
66 and other colleagues (13.2% and 19.1% respectively) <sup>14</sup>. A survey conducted by UNISON  
67 found 8% of healthcare workers had suffered workplace sexual harassment with the  
68 majority perpetrated by colleagues <sup>15</sup>. More than half the referrals received by the National  
69 Clinical Advisory Service (NCAS) are related to behavioural concerns, defined as erratic or  
70 aggressive behaviour towards others <sup>12</sup>. As a response to growing DB concerns, NHS has  
71 introduced a national whistleblowing policy to support HCP's speaking up about their  
72 concerns and the GMC has recently launched a pilot programme which trains doctors in  
73 tackling unprofessional behaviours from their colleagues <sup>16</sup>.

74 While the consequences to the organisation and affected individual are well-documented,  
75 the direct association between DB and patient harm is less clear, but it is growing. A study in  
76 2004 linked intimidation and preventable medication errors <sup>17</sup>. The report found  
77 intimidation contributed to 7% of drug errors, and 49% of participants felt pressured into

78 dispensing or administering medication despite concerns. Another study of 4530 HCPs  
79 found that 75% of participants associated DB with medication errors and 27% associated DB  
80 with increased risk of mortality <sup>18</sup>. A systematic literature review in 2009 identified 10  
81 studies, all of which found links between HCP perceptions of DB and poor patient care <sup>19</sup>.  
82 However, all studies were of a descriptive, non-experimental design and the author  
83 concluded that improved research was needed to establish the true impact of HCP on the  
84 patient. It is now ten years since the review was published and an apt time to assess the  
85 empirical evidence collected over the last decade and whether the Joint Commission's  
86 Sentinel Event Alert about DB has had any effect.

## 87 **Aims**

88 The aim of this study is to identify and synthesize the empirical evidence on the effect of  
89 HCP DB on at least one of the following outcome measures of patient care; clinical  
90 outcomes, patient safety, patient satisfaction or quality of care.

91

## 92 **METHODS**

93 To address the aim of the study, a systematic literature review was conducted.

### 94 **Eligibility Criteria**

95 Studies were selected if they met the following inclusion criteria:

- 96 1. Empirical studies that examined the relationship between HCP DB and patient care.
- 97 2. HCP were defined as any registered or certified healthcare worker working in any  
98 healthcare setting globally
- 99 3. Studies that referred to DB, bullying, lateral or horizontal violence, verbal, physical or  
100 sexual assault, incivility, hostile, unprofessional or rude behaviours
- 101 4. Studies that linked DB with outcome measures of patient care including clinical  
102 outcomes, patient safety, patient satisfaction and quality of care.
- 103 5. Studies published from 01/01/2009 until 23/07/2019
- 104 6. Peer reviewed
- 105 7. Published in English

106 Excluded from this pool were studies that focused on the prevalence of DB but did not make  
107 associations with patient care. Studies that examined HCP DB aimed at patients or student  
108 HCPs were excluded. Studies examining DB perpetrated exclusively by patients, their  
109 families or student HCP's were excluded although studies that presented mixed group DB  
110 that included HCP were included. Studies that solely focused on organisational outcomes of  
111 DB and patient care (i.e. staff retention or financial impact) were excluded however studies  
112 that included both organisational and individual outcomes were included. Excluded were  
113 studies that examined the relationship between teamwork and/or interprofessional  
114 collaboration and patient outcomes as poor teamwork is not always attributable to DB.

### 115 **Information Sources**

116 Between June 6<sup>th</sup>, 2019 and July 23<sup>rd</sup>, 2019, six databases were searched (Allied and  
117 Complementary Medicine (AMED), Cumulative Index to Nursing and Allied Health Literature  
118 (CINAHL), Embase, Health Policy Reference Center, Medline and PsychInfo) for published  
119 studies that examined healthcare professional DB and patient care. Databases were  
120 searched individually via the EBSCOhost portal and OVID online. Additional studies were  
121 also found by hand searching reference lists of previous systematic reviews.

### 122 **Search Strategy**

123 The search strategy was developed under the supervision of the Health Sciences librarian, at  
124 City, University of London [ES]. Key word searching and MeSH search terms were used.  
125 Titles and abstracts were screened by a sole reviewer. Full texts were screened blindly by  
126 two reviewers.

### 127 **Risk of Bias**

128 The studies were assessed for quality using the Mixed Methods Appraisal Tool (MMAT) <sup>20</sup>.  
129 This tool was chosen to cater for the heterogeneity of studies included in the review. Risk of  
130 bias assessment was completed by the first author. No studies were excluded on the result  
131 of the risk of bias assessment.

132

## 133 **RESULTS**

### 134 **Study Selection**

135 An initial search yielded 9016 results. Initial report characteristics exclusion criteria (date,  
136 peer review and English only) were applied leaving 5069 results. After title screening and  
137 removing duplicates, 279 abstracts were included for screening. 77 full texts were selected  
138 for screening of which 25 were included. [See Figure 1 for stages of the study selection  
139 using the PRISMA framework <sup>21</sup>].

#### 140 **Summary of study characteristics**

141 The 25 studies identified were conducted in a wide range of healthcare settings and  
142 included a variety of HCP's (nurses, doctors, dentists, pharmacists and allied health  
143 professionals). The majority were conducted in USA (n=15), though in total studies came  
144 from 9 different countries. Most studies solely sampled nurses (n=14), others sampled  
145 solely doctors or patients of those doctors (n=2) and the rest sampled across professional  
146 groups (n=8). In the mixed samples, nurses usually formed the largest group of participants  
147 (n=7). Study design varied from quantitative descriptive (n=17), qualitative (n=5), non-  
148 randomised (n=2) and randomised (n=1). Three studies searched databases or hospital  
149 records <sup>22-24</sup>. Eight studies referred to DB, 7 to bullying, 5 to violence (including horizontal  
150 or lateral violence), 3 to intimidation, 2 to rudeness. The prevalence of DB varied hugely in  
151 the studies from 2% - 79% <sup>25,26</sup>. The type of DB ranged from a refusal to co-operate to  
152 emotional and verbal abuse with 12% of participants from one study having suffered  
153 physical abuse from colleagues <sup>27</sup>. One study reported sexual abuse <sup>28</sup>. Studies that  
154 reported DB amongst different professional groups saw an equal number of studies  
155 reporting a higher prevalence of DB amongst non-physician groups <sup>26,29</sup> and physician  
156 groups <sup>23,30</sup>. Outcome measures were wide ranging and included HCP/patient reported  
157 quality of care (n=7), adverse events (n=5), near misses (n=4), surgical and medical  
158 complications (n=3), medication errors (n=3), falls (n=2) and compliance with hand hygiene  
159 (n=1). [See table 1 for results table].

160 Studies included showed a mixed risk of bias. 6 studies had a low risk of bias, 18 studies had  
161 a medium risk of bias and 1 study had a high risk of bias. Low response rates were  
162 widespread, with non-response bias of up to 80% <sup>25</sup>.

#### 163 **Main findings**



164 There is an abundance of evidence that supports the hypothesis that DB has a direct  
165 negative effect on patient care (n=24). Four recurring themes were identified throughout  
166 the literature: adverse incidents, neglect of care needs, complication rates and patient  
167 safety.

### 168 **Adverse incidents**

169 Many studies provide evidence that DB contributes to adverse incidents. These behaviours  
170 were demonstrated to both cause and predict adverse incidents<sup>25,31</sup>. Descriptions of  
171 adverse incidents in the literature include mortality, patient harm, never events, falls, hand  
172 hygiene compliance and medication errors. Up to 94% of clinicians associated DB with  
173 mortality<sup>22,26,30,32</sup> and 13 – 45.5% were aware of a specific adverse incident that had  
174 occurred because of DB<sup>26,30</sup>. One study reported that DB had resulted in 189 incidences of  
175 harm to patient in the past year, 10% of which caused permanent harm and 12.7% required  
176 life sustaining interventions<sup>33</sup>. After controlling for variables, an increase in DB exposure  
177 led to a corresponding increase in adverse events<sup>22,25,34</sup> and the likelihood of near misses  
178<sup>25,27,30,32,35</sup>. However, 2 out of 19 studies found no significant association between DB and  
179 adverse incidents and an analysis of serious events associated with bullying resulted in no  
180 direct patient harm<sup>23,36</sup>. This may be due to a widespread culture of underreporting and  
181 the absence of a bullying category in the patient safety report system. Underreporting of  
182 DB was a recurring theme, with study participants reporting fear of identification, despite  
183 guarantees of confidentiality<sup>13</sup>.

### 184 **Neglect of care needs**

185 There was a positive correlation between exposure to physical violence and bullying and the  
186 omission of clinical tasks<sup>13,22,37</sup>. Tasks that were completed after the HCP had been exposed  
187 to violence took longer and were delayed more frequently<sup>22</sup>. DB resulted in HCP attention  
188 being diverted away from the patient and toward the perpetrator and resulted in staff being  
189 less willing or refusing to collaborate with other providers over patient management<sup>13,38,39</sup>.  
190 DB resulted in toxic working environments that led to staff leaving patients soiled for  
191 extended periods and relegating tasks that they considered 'non-essential' such as  
192 repositioning, mobilising and oral hygiene<sup>28</sup>. The disengagement of HCP from patients'  
193 emotional needs and the adoption of a mechanistic, task-orientated approach was a coping

194 mechanism for HCP who were near cognitive depletion, a state that is consistent with  
195 exposure to DB <sup>28,36,40</sup>.

## 196 **Clinical Outcomes**

197 Medical teams attending to a deteriorating paediatric patient had a 12% reduction in  
198 diagnostic and procedural performance when exposed to rudeness, compared to teams not  
199 exposed to rudeness <sup>41</sup>. Individual procedural performance including resuscitation,  
200 ventilation and pericardiocentesis skills were reduced with exposure to rudeness as was  
201 overall team performance. There was a significant association between reduced diagnostic  
202 ability of shock, deterioration, bowel perforation, cardiac tamponade and rudeness <sup>41</sup>.  
203 Another study showed that patients whose surgeons had received any co-worker  
204 complaints about professionalism had a 11 – 14% higher risk of surgical and medical  
205 complications <sup>24</sup>. Those who had received four or more negative behavioural reports  
206 compared to those with zero reports had a 31.7% higher estimated mean complication risk.  
207 This is supported by other studies that suggest patient complaints about professionalism  
208 can be used to identify doctors with higher complication rates <sup>42,43</sup>. Complaints regarding  
209 professionalism outnumber complaints regarding medical issues, reflecting an intolerance of  
210 patients to be treated by unprofessional as well as potentially incompetent clinicians <sup>43</sup>.

## 211 **Patient Safety**

212 In the studies identified, disruptive behaviours were found to interrupt existing patient  
213 safety mechanisms. Divergence from clinical protocols aimed at improving patient safety  
214 was reported to be both a manifestation and consequence of disruptive behaviour <sup>38,44–46</sup>.  
215 Refusal to follow protocol was described in neonatal resuscitation procedures, drug  
216 administration and standard operational procedures <sup>36,38,44–46</sup>. Rudeness was also shown to  
217 impact on infection control protocols with a significant association ( $p=0.03$ ) found between  
218 rudeness and reduced compliance with hand hygiene <sup>36</sup>. Although no direct harm was  
219 reported by these studies, staff described a breakdown in the patient safety culture and the  
220 provision of standardised care <sup>38,47</sup>. Furthermore, widespread intimidation related to drug  
221 administration was reported, with nurses frequently being told to ‘just give what I ordered’  
222 despite concerns about prescriptions, leading to potential drug errors <sup>29,38,45</sup>. Studies  
223 reported an association between disruptive behaviours and a reduction in help-seeking

224 behaviours (n=5). This was described in medications management, procedural and  
225 diagnostic performance, manual handling, when using unfamiliar equipment and when  
226 alerting medical staff to a deteriorating patient <sup>28,29,38,41,45,46</sup>. Timely sharing of quality  
227 information, vital for treatment was also reduced with exposure to rudeness <sup>13,41</sup>.

228

## 229 **DISCUSSION**

230 The prevalence and severity of DB in all studies is alarming, with evidence suggesting that  
231 HCP face physical and sexual violence from colleagues. However, whilst these high-intensity  
232 but less frequent behaviours should trigger well-embedded disciplinary and support  
233 processes, low-level behaviours are more challenging to manage. The evidence suggests  
234 that most healthcare settings have normalised a low-level culture of DB in which HCP's have  
235 come to accept rude and aggressive behaviours as inevitable and justified by the stressful  
236 nature of the job <sup>3,33</sup>. DB is considered a rite of passage into seniority <sup>28</sup>.

237 At a systemic level, the role of the organisation was paramount and was seen either as a  
238 protective or an enabling factor in DB <sup>22,28,38,45-47</sup>. Institutions that had codes of conducts,  
239 clinical protocols, higher levels of nurse autonomy and procedures in place to encourage  
240 junior staff to question senior staff had lower levels of perceived DB <sup>22,45</sup>. However, most  
241 studies reported substandard organisational response resulting in most HCP's preferring to  
242 seek advice from a colleague or learning to 'stay silent' <sup>23,28,29,38,46,47</sup>. Those that did report  
243 DB through the formal channels did not receive any feedback or follow up from the  
244 organisation <sup>29</sup>. There was a feeling that the organisation would not listen and always  
245 appease the hierarchy and protect the status quo <sup>13,28,38,46,47</sup>. A small proportion of HCP's  
246 did not report DB due to fear of retribution <sup>29</sup>. Research illustrates the essential role of  
247 leadership and education programmes in tackling HCP DB and that taking appropriate early  
248 action leads to reduced complaints and defers future conflict including lawsuits <sup>8,48</sup>.

249 The increased research profile of DB is reflected in clinical practice in the USA, but to a  
250 lesser extent in the UK. Whilst serious individual concerns will be referred to NCAS, the  
251 GMC, NMC or other regulatory body, there are few safeguards in place for dealing with  
252 ingrained, low-level DB <sup>8</sup>. Whilst most NHS Trusts have codes of conduct that address  
253 bullying and harassment, the authors couldn't find any policies that address low-levels of DB

254 such as incivility. The GMC's 'Medical Professionalism Matters' workshop this year showed  
255 that 60% of doctors would still not feel supported by their organisation if they raised a  
256 concern <sup>16</sup>. However, steps are being made in the right direction with the pilot programme,  
257 'Professional Behaviours and Patient Safety' launched by the GMC to educate doctors in  
258 how to manage HCP DB. 2 years ago the Royal College of Nursing published 'Managing  
259 Unacceptable Behaviour' guidelines <sup>49</sup>. Last year as a response to the high levels of bullying  
260 reported in the NHS staff survey, an alliance against bullying, undermining and harassment  
261 was created to support staff across the health sector <sup>50</sup>. Despite this progress, healthcare  
262 leaders must continue to utilise the evidence-based education and management  
263 programmes to protect patients from iatrogenesis.

264

## 265 **CONCLUSION**

266 This systematic review shows that HCP DB negatively effects patient care. DB ranged from  
267 low level, demeaning behaviours to verbal abuse and sexual assault. These behaviours  
268 occurred across healthcare settings and professional groups. The effect on the patient  
269 included medication errors, falls, surgical and medical complications and mortality. Help-  
270 seeking, information sharing and adherence to protocols are reduced, significantly impeding  
271 positive inter/intra-professional collaboration. The targeted HCP experienced poor job  
272 satisfaction and increased intent to leave and the organisation suffered culturally and  
273 financially. Covert bullying behaviours have been normalised in healthcare and are  
274 unrecognised and unreported meaning that HCP DB may be more prevalent than currently  
275 thought <sup>23</sup>.

276

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