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Experiences and perceptions of dietitians for obesity management: a general practice qualitative study

Short title: Dietitians for obesity management

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1 **Abstract**

2 Background: Multi-component lifestyle interventions are the first line treatment for obesity.
3 Dietitians are ideally placed healthcare professionals to deliver such interventions. However, only a
4 small proportion of patients with obesity are referred by general practice to dietitians, and the reasons
5 for this are not clear. The aim of this study was to explore general practice healthcare professionals'
6 (GPHCPs) experiences and perceptions of dietitians in the context of obesity management.

7

8 Method: A convenience sample of GPHCPs practicing in the UK was recruited via a targeted social
9 media strategy, using virtual snowball sampling. Data were collected using semi-structured
10 interviews and analysed using framework analysis.

11

12 Results: 20 participants were interviewed (11 General Practice Nurses and 9 General Practitioners).
13 Experiences of referring patients with obesity for dietetic intervention resulted in two main themes:
14 (i) access barriers; (ii) the dietetic consult experience. Three themes emerged from participants'
15 perceptions of a role for general practice dietitians: (i) utilising dietetic expertise; (ii) access to
16 dietitian; (iii) time. Participants experienced barriers to accessing dietitians for obesity management
17 and felt that having a dietitian working within their general practice team would help address this.
18 Having a dietitian embedded within their general practice team was perceived to have the potential
19 to alleviate GPHCPs' clinical time pressures, offer opportunities for upskilling; and may improve
20 patient engagement with obesity management.

21

22 Conclusion: GPHCPs perceived that embedding a dietitian within their general practice team would
23 be valuable and beneficial for obesity management. Our findings provide support for the funding of
24 general practice dietitian roles in the UK.

25

26 **Keywords:** General practice, primary care, obesity, weight loss, dietetics, qualitative research

27

28 **Introduction**

29 In the UK, general practice is the first point of access for the diagnosis and management of chronic
30 diseases ⁽¹⁾, including obesity and obesity related co-morbidities. The UK has the third highest rate of
31 obesity in Europe ⁽²⁾, with 67% of males and 62% of females in the UK being classified as being
32 overweight or having obesity (body mass index (BMI) $\geq 25\text{kg/m}^2$) ⁽³⁾.

33

34 General Practitioners (GPs) have a key role in the co-ordination of patients' treatment ⁽⁴⁾, and can be
35 described as the 'gatekeepers' for referrals to other healthcare professionals. The National Institute
36 for Health and Care Excellence (NICE) recommends that healthcare professionals should refer
37 patients with obesity for multi-component interventions as a first-line treatment ⁽⁵⁾. Dietitians are
38 ideally placed healthcare professionals with the expertise to deliver such interventions and dietetic
39 interventions are effective for weight management ⁽⁶⁻⁸⁾. However, general practice healthcare
40 professionals (GPHCPs) in the UK refer only 3% of patients with a BMI $\geq 25\text{kg/m}^2$ for a weight
41 management intervention ⁽⁹⁾, and the reasons for this are unclear.

42

43 The NHS Long-Term Plan ⁽¹⁰⁾ outlines the most significant reforms to GP services in 15 years, with
44 GP practices working together as part of local Primary Care Networks (PCNs), which can now benefit
45 from having access to funding for additional staff, including dietitians, to form an integral part of an
46 expanded multidisciplinary team (MDT) ⁽¹¹⁾. The value of integrating dietitians into the general
47 practice team is supported in the Canadian ⁽¹²⁻¹⁴⁾ and Australian ^(15,16) observational literature.
48 However, dietitians working within a general practice MDT is in its infancy in the UK.

49

50 Therefore, this semi-structured interview study aimed to explore GPHCPs' experiences of referring
51 patients with obesity to dietitians, as well as GPHCPs' perceptions of the value and practicalities of
52 embedding dietitians within the general practice team, for obesity management.

53

54 **Methods**

55 **Study Design**

56 This study explores the experiences and perceptions of GPHCPs on an under-studied topic, and as
57 such utilised an exploratory qualitative research design ⁽¹⁷⁾.

58

59 **Researcher Positionality**

60 Reflexivity acknowledges the influence of researcher positionality on the research process ⁽¹⁸⁾. In this
61 study, the influence of the researchers' own experiences of obesity management and their professional

62 identities (SA as a secondary care obesity dietitian, HP as a GP and SG a medical sociologist) have
63 been considered within the research process.

64

65 **Participants and Recruitment**

66 General Practice Nurses (GPNs) and GPs were eligible to take part in this study. A convenience
67 sample ⁽¹⁹⁾ of GPHCPs were recruited using online social networks using a method known as virtual
68 snowball sampling ⁽²⁰⁾, whereby a small pool of social media followers nominate other participants
69 who meet the eligibility criteria ⁽²⁰⁾. Recruitment took place between August and September 2019,
70 via online advertisement on the platforms of Facebook, Twitter and LinkedIn. Readers of the
71 advertisement were encouraged to forward the advertisement to eligible participants within their
72 networks to support virtual snowball sampling ⁽¹⁷⁾. After reading the online participant information
73 sheet, participants confirmed their consent electronically, provided demographic screening
74 information and their contact details, and were contacted to arrange a convenient interview time.

75

76 **Data Collection**

77 Semi-structured interviews ⁽²¹⁾ were carried out by one interviewer (SA), using an interview topic
78 guide (Supplementary Table 1). The topic guide was developed by the research team following a
79 standard process ⁽²²⁾, informed by existing literature, the clinical experience of SA and HP and the
80 study aims. The topic guide was piloted with two GPs, which led to some minor modifications to the
81 wording of some questions. Participants were given the choice for the interview to be conducted by
82 Voice over Internet Protocol (VoIP) ⁽²³⁾ using Skype, or face-to-face. Interviews were audio-recorded
83 and transcribed verbatim by a professional transcription service. Each recording and subsequent
84 transcript was assigned a participant numerical number to ensure anonymity and confidentiality. Each
85 transcript was checked for accuracy by the interviewer (SA) prior to analysis.

86

87 Demographic information on each participant's job role, gender and experience (years) in general
88 practice was collated via the online consenting process. Participants disclosed the name of their
89 employing GP practice during interview, and information about the demographic of each participant's
90 GP practice was obtained using the National General Practice Profiles database ⁽²⁴⁾, including data
91 on: GP practice size ⁽²⁵⁾, deprivation level ⁽²⁶⁾ and estimates of non-white ethnicity groups ⁽²⁷⁾. GP
92 practices were defined as urban or rural locations using the Rural Urban Classification of Wards ⁽²⁸⁾.

93

94 **Data Analysis and Synthesis**

95 Data was analysed using framework analysis ⁽²⁹⁾ which is used widely in healthcare research ⁽³⁰⁾.
96 Framework analysis allows for the conceptual framework to be developed from codes based upon the

97 key areas of the topic guide as well as newly emerging themes ⁽³⁰⁾, using a systematic five stage
98 process ⁽²⁹⁾: 1. Familiarisation, 2. Identifying a thematic framework, 3. Indexing, 4. Charting, and 5.
99 Mapping and interpretation. The research team (SA, HP, SG) independently read through three
100 transcripts (stage 1), then met to develop an initial framework using emergent data and key areas of
101 the topic guide (stage 2). One researcher (SA) independently indexed and summarised the remaining
102 transcripts (stage 3 and stage 4), adapting the framework as necessary, using QSR NVivo 12 ⁽³¹⁾.
103 Finally, the key characteristics of the data were mapped and interpreted by the research team (SA,
104 HP, SG) (stage 5) and verbatim participant quotes were extracted to illustrate themes and enhance
105 interpretive validity ⁽³²⁾.

106

107 **Results**

108 Twenty-four GPHCPs consented to participate in the study. Two participants withdrew their consent
109 due to lack of availability and a further two participants were not contactable. Therefore, a total of 20
110 GPHCPs (11 GPNs and 9 GPs) participated in the study. All participants elected to be interviewed
111 using VoIP. Interviews lasted an average of 41 minutes (range 24 – 61 minutes). The data were
112 considered to have reached saturation ⁽³³⁾ with 20 participants, as no new insights were revealed.

113

114 Most participants were female (18/20) and held a variety of job positions (see Table 1), with the
115 extent of experience in general practice ranging from 3 to 30 years. Participants worked across small,
116 large, urban and rural general practices with diverse patient demographics across England and
117 Scotland (Index of Multiple Deprivation (IMD) 2019 ⁽²⁶⁾ scores ranged from 6.8 to 50.8, and of non-
118 white ethnicities ranged from 1.5% to 61.1%.) Full characteristics of the participants and their
119 employing GP practices are presented in Table 1.

120

121 The thematic results are presented in two parts: part 1) explores GPHCPs' experiences of referring
122 patients with obesity to a dietetic service, and part 2) explores GPHCPs' perceptions of a general
123 practice role for dietitians for obesity management.

124

125 **1) Experiences of referring for dietetic interventions**

126 All participants had to refer their patients to secondary or tertiary care dietetic services. None of the
127 participants had access to a dietitian within their general practice. However, five participants (GP1,
128 GPN3, GPN6, GPN8, GPN11) could recall a time in the past where they used to be able to refer to a
129 general practice dietitian. Two main themes with six sub-themes emerged from the data. The sub-
130 themes underpinning the main themes are supported by the illustrative participant quotes in Table 2.

131

132 **Theme 1: Barriers to access**

133 Within this theme, GPHCPs described the barriers they had experienced when accessing dietetic
134 services for their patients with obesity. All five GPHCPs participants who used to have access to a
135 general practice dietitian felt that they had better and easier access to a dietitian when they were based
136 in their general practice, compared to now, where access is via a secondary care referral.

137

138 *Geographical disparity:* GPHCPs acknowledged that access to dietetic services varied by locality,
139 with almost all GPHCPs reporting limited access. Some participants recalled patients actively
140 requesting referral to a dietitian. GPHCPs felt guilty upon informing their patient that dietitian
141 services were not available in their geographical area.

142

143 *Rejected referrals:* GPHCPs experienced a high number of rejected or '*bounced*' referrals, which
144 discouraged them from making further referrals to dietitians. GPHCPs felt that communication from
145 dietetic services about rejected referrals was lacking, meaning they were unable to understand why
146 their referral had been rejected.

147

148 *Referral criteria:* GPHCPs believed dietetic services would only accept referrals for patients with
149 obesity who were clinically complex. Some GPHCPs believed that dietitians would only accept
150 referrals for patients who were underweight and needed to increase their weight and would not accept
151 patients with obesity for weight loss.

152

153 **Theme 2: The dietetic consult experience**

154 GPHCPs' experiences of the dietetic consult itself were mixed. Experiences were informed entirely
155 by verbal reports from their patients, or written feedback from a dietitian, as they did not have any
156 direct experiences.

157

158 *Weight stigma:* GPNs described stigmatising statements made by patients about dietitians, based upon
159 dietitians' body sizes. Patients' weight biases were directed toward dietitians who were both '*very,*
160 *very overweight*' or '*really thin*'. Patients told GPHCPs that they felt that dietitians with obesity were
161 '*hypocrites*', referring to the proverbial idiom '*pot calling the kettle black*'; meanwhile '*thin*'
162 dietitians could not relate or sympathise with having obesity, and thereby they felt '*judged*' by their
163 dietitian.

164

165 *Dietitian's interest:* Patients told GPHCPs that they preferred to see specialist dietitians, as opposed
166 to dietitians working in general services, as they felt that specialist dietitians had greater knowledge
167 of, and interest in, obesity and displayed greater empathy towards them.

168

169 *Continuity:* GPHCPs expressed a lack of communication from dietetic services about the dietetic
170 support they have provided their patient. This led GPHCPs to assume that dietetic interventions were
171 brief, short-term and consisted of seeing a patient for a 'one off' single intervention; and felt that this
172 level of follow-up was insufficient and ineffective.

173

174 **2) The General Practice Dietitian Role**

175 Three main themes and seven sub-themes emerged from the data around the potential of a role for a
176 general practice dietitian and are supported by the participant quotes, shown in Table 3.

177

178 **Theme 1: Utilising dietetic expertise**

179 GPHCPs felt that dietitians were 'experts' in managing obesity and perceived that dietitians' expertise
180 could be utilised by general practice teams in several ways, as described in the sub-themes below.

181

182 *Patient contact:* GPHCPs felt it was important for dietitians to work within general practice surgeries
183 to provide 'expert advice' directly to patients with obesity. GPHCPs also believed that having access
184 to 'in-house' dietitians would increase screening for obesity. GPHCPs did not want the dietitians to
185 work in silos. GPHCPs wished to be able to book direct appointments with dietitians and view
186 dietitians' entries in GP medical records, to aid continuity of care.

187

188 *Upskilling peers:* GPHCPs wanted guidance on how they can support patients of lesser complexity
189 themselves and felt that dietitians could 'upskill' the general practice team. GPHCPs acknowledged
190 that GPNs and healthcare assistants (HCAs) currently provide first line dietary advice, despite being
191 'nutritionally ill-informed'.

192

193 *'Curbside consultation':* GPHCPs perceived that having a dietitian within their team would offer
194 natural opportunities to seek informal dietetic advice about patients— a term referred to in medical
195 practice as a 'curbside consultation' ⁽³⁴⁾. The opportunity for informal discussions would enable
196 GPHCPs to feel more supported, and less 'isolated' when managing obesity.

197

198 **Theme 2: Access to dietitian**

199 Within the theme of access, there was a common perception that integrating dietitians into general
200 practice would improve physical access for patients, as well as referral access for GPHCPs.

201

202 *Physical access:* GPHCPs felt that patients with obesity would be more '*willing*' to attend an
203 appointment with a dietitian if it was held in general practice, as this is less burdensome for patient
204 travel. Further, secondary care environments were perceived to be '*scary*' for patients, while general
205 practice was described as a familiar environment.

206

207 *Referral pathways:* GPHCPs proposed a '*simple*' referral pathway for referring to general practice
208 dietitians, that did not involve referral forms and patients could be booked directly into dietitians'
209 clinics. Making internal referrals to '*someone in the building*' was perceived as an enabler to
210 increasing referrals to dietitians for obesity management.

211

212 **Theme 3: Time**

213 Time was cited by GPHCPs as being crucial for managing obesity, and it was perceived that
214 integrating dietitians into general practice would provide timely access to treatment for patients whilst
215 also '*freeing up*' GPHCPs' clinical time.

216

217 *Referral to treatment time:* GPHCPs perceived that obesity management interventions needed to be
218 initiated quickly, likening obesity to a point of '*crisis*'. Immediate access to dietitians was deemed
219 important for a successful weight management outcome, and it was perceived that embedding
220 dietitians into general practice would enable a shorter referral-to-treatment time.

221

222 *Health professionals' time:* Dietary advice was perceived to be clinically time consuming for
223 GPHCPs, who felt '*under pressure*' to deliver dietary advice within short appointments. GPHCPs felt
224 that giving dietary advice did not '*suit their skill set*' and was not the best use of their clinical time.
225 GPHCPs believed many of their patients could be referred to a dietitian, and that this would be
226 '*invaluable*' in '*freeing up*' their clinical time.

227

228 **Discussion**

229 **Summary**

230 GPHCPs experience barriers in accessing dietitians for obesity management and perceived that
231 having a dietitian working within the general practice team would contribute to remedying some of
232 the barriers to access. GPHCPs perceived dietitians' expertise to be valuable for the management of
233 obesity, but emphasised dietitians would need to be embedded within the team and would need to

234 have a specialist interest in obesity for their dietetic expertise to be utilised effectively. Recruiting a
235 dietitian to the general practice team was perceived as an enabler to overcoming challenges that
236 GPHCPs face relating to obesity management; such as alleviating time pressures and offering
237 opportunities for dietitians to provide training. GPHCPs believed that appointments with a general
238 practice dietitian would be appealing for patients and may improve patients' engagement with obesity
239 management. GPHCPs raised concerns about a bi-directional weight stigma between patients with
240 obesity and dietitians, suggesting that patients held a weight bias about the dietitians who treated
241 them, and patients felt that dietitians had a judgemental attitude towards their obesity.

242

243 **Strengths and limitations**

244 This is the first study to explore GPHCPs' experiences and perceptions of dietitians for obesity
245 management in the UK. Participation was not incentivised, yet there was no difficulty in recruitment.
246 We believe this can be attributed to the virtual snowball sampling method, which enabled lateral
247 communication that had a 'multiplier effect' ^(35,36). However an inherent limitation of convenience
248 sampling is selection bias ⁽³⁷⁾, which may mean that the GPHCPs electing to take part in this study
249 were those who held strong opinions regarding obesity management. Using VoIP for data collection
250 allowed data to be collected from a diverse demographic of participants and from multiple geographic
251 areas ⁽³⁶⁾ across the UK, increasing transferability of the findings. However, the limitations of VoIP
252 are acknowledged, such as the loss of intimacy as a result of technical difficulties ⁽³⁸⁾ and hindrance
253 to the detection of non-verbal cues ⁽³⁹⁾.

254

255 **Comparison with existing literature**

256 Although this is the first study to explore GPHCPs' experiences and perceptions of dietitians for
257 obesity management in the UK, findings are consistent with the limited literature available
258 internationally. A prior systematic review ⁽⁴⁰⁾ explored dietetic referral practices for obesity
259 management, and concluded that lack of accessibility to secondary care dietitians was an important
260 barrier to dietetic referral. Meanwhile, GPs who did have access to dietitians within primary care
261 benefited from frequent contact with dietitians, which enabled dietetic referrals through enhanced
262 communication and relationship building ⁽⁴⁰⁾. While these findings were akin to our own, only two
263 studies in the systematic review ⁽⁴⁰⁾ study were qualitative, the viewpoints of GPNs were not sought
264 and no studies were conducted within the UK.

265

266 Our findings relating to utilising dietetic expertise in general practice, are also comparable to studies
267 evaluating the role of primary care dietitians in Canada ^(12,13). Dietitians upskilled GPs, leading to
268 GPs being better able to manage patients that did not require a formal referral to a dietitian ^(12,13). Both

269 formal and informal face-to-face communication between dietitians and GPs were important
270 opportunities for inter-disciplinary learning ^(12,13). While curbside consultation practices between
271 physicians in primary care is well documented as an integral part of medical culture ⁽³⁴⁾, ‘informal
272 hallway chats’ have been found to take place between GPs and dietitians in the Canadian primary
273 care context ⁽¹²⁾ and within this study. Although there are parallels between our study and the
274 Canadian literature, these studies ^(12,13) were not conducted within the context of obesity management,
275 and moreover their findings may not be generalisable to the context of the structuring and financing
276 of UK general practice.

277

278 Our data found that GPHCPs perceived obesity management to be time consuming and proposed that
279 obesity management could be directly referred onto general practice dietitians, thus alleviating
280 GPHCPs’ clinical time pressures. Time is known to be a barrier for healthcare professionals in raising
281 the topic of weight during appointments. The ACTION International Observation (ACTION-IO)
282 study ⁽⁴¹⁾ found that more than half of all healthcare providers surveyed indicated that a perceived
283 lack of time in consultations was a factor in not discussing weight loss with their patients. Time was
284 also a significant barrier in a UK qualitative study ⁽⁴²⁾, in which both GPs and GPNs expressed a
285 perceived lack of clinical time as a barrier to the initiation of discussion about weight loss with
286 patients with obesity.

287

288 Low self-efficacy has also been reported in the literature as a barrier among healthcare professionals
289 in both raising the topic of weight with patients initially ⁽⁴²⁾ and managing obesity ^(43,44). This has been
290 attributed, in part, to a lack of training ⁽⁴⁵⁾. In our study, GPHCPs perceived dietitians to be the experts
291 in obesity management and felt that having a dietitian working with their general practice would offer
292 opportunities for upskilling of the wider general practice team. It may be that GPHCPs welcoming
293 dietitians into general practice may partly be due to their lack of confidence in their own obesity
294 management competencies.

295

296 Our present study found that GPHCPs believed that a two-way weight bias existed between dietitians
297 and patients with obesity, and that this negatively influenced patients’ satisfaction with a dietetic
298 consultation concerning obesity management. It is clear from the literature that obesity is a
299 stigmatising condition that impacts negatively on the relationship between patients and healthcare
300 professionals ^(46–48), including dietitians ^(49,50). A qualitative study from the perspective of patients has
301 previously shown that patients make judgements about the health of their GP based upon their GP’s
302 physical appearance, particularly weight status, whereby patients expressed that the advice given by
303 their GP is more credible, motivating and trustworthy if they perceived their GP to be healthy ⁽⁵¹⁾.

304 Our data also shows that patients with obesity vocalise a weight bias towards dietitians, which has
305 not previously been reported in the literature.

306

307 **Implications for research and/or practice**

308 This study has provided valuable exploratory data that suggests that GPHCPs are dissatisfied and
309 frustrated with current referral pathways to refer patients with obesity to dietitians. GPHCPs welcome
310 the expertise that dietitians can bring to their general practice teams to support obesity management,
311 and the integration of dietitians into the general practice team is seen to be key. The findings are
312 opportune for UK practice, given that dietitians have now been added to the Additional Roles
313 Reimbursement Scheme in the recent update to the GP contract agreement for 2020/21 - 2023/24 ⁽¹¹⁾.
314 Our findings suggest the future role of general practice dietitians should, alongside providing patient
315 consultations, incorporate formal and informal obesity training for GPHCPs. Dietitians and GPHCPs
316 should also work together to formulate simple and pragmatic internal referral pathways. Further
317 qualitative work which focuses on the design and specification of a general practice dietitian role
318 should be undertaken, and should include input from important stakeholders, including patients and
319 GPHCPs. Future research should examine the impact of embedding a dietitian in general practice has
320 in terms of improving GPHCPs' own nutritional competency and improving patient engagement in
321 obesity management.

322

323 This study has also raised concerns about a two-way weight stigma between dietitians and patients
324 with obesity. Weight stigma in healthcare is widespread and addressing this requires a multi-strategic
325 approach both within healthcare and across society ⁽⁵²⁾. Lack of education about the biological causes
326 and controllability of obesity has been shown to contribute towards weight stigma among student
327 healthcare professionals in the UK, including student dietitians ⁽⁵⁰⁾. Targeted educational training on
328 the causation and controllability of obesity may be beneficial in addressing weight stigma. However,
329 whether such educational training can improve the explicit and implicit attitudes that are conducive
330 to weight stigma among qualified dietitians is yet to be determined and is an area that requires further
331 research.

332

333 **Transparency:** The lead author affirms that this manuscript is an honest, accurate, and transparent
334 account of the study being reported. The lead author affirms that no important aspects of the study
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336

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344

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346

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