

'If I die, I die, I don't care about my health'

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1 **'If I die, I die, I don't care about my health': perspectives on self-care of**
2 **people experiencing homelessness.**

3

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38 **'If I die, I die, I don't care about my health': perspectives on self-care of**
39 **people experiencing homelessness.**

40

41 **Abstract:**

42 Self-care, which refers to what people do to prevent disease and maintain good
43 health, can alleviate negative health consequences of people experiencing
44 homelessness. The aim of the study was to apply a theoretically informed
45 approach in exploring engagement of people experiencing homelessness in self-
46 care and to identify factors that can be targeted in future health and social care
47 interventions. Qualitative semi-structured interviews were conducted with 28
48 participants opportunistically recruited from a specialist homelessness healthcare
49 centre (SHHC) of North East Scotland, United Kingdom (UK). An interview
50 schedule was developed based on the theoretical domains framework (TDF).
51 Interviews were audio-recorded and transcribed verbatim. Six aspects of self-care
52 were explored including (i) self-awareness of physical and mental health, (ii)
53 health literacy including health seeking behaviour, (iii) healthy eating, (iv) risk
54 avoidance or mitigation, (v) physical activity and sleep, and (vi) maintaining
55 personal hygiene. Thematic analysis was conducted by two independent
56 researchers following the Framework Approach. Participants described low
57 engagement in self-care. Most barriers to engagement in self-care related to TDF
58 domain 'environmental context and resources'. Participants often resorted to
59 stealing or begging for food. Many perceived having low health literacy to
60 interpret health related information. Visits to churches and charities to get a
61 shower or to obtain free meals were commonplace. Participants expressed
62 pessimism that there was 'nothing' they could do to improve their health and
63 described perceived barriers often too big for them to overcome. Alienation, lack
64 of social support, and the perception that they had done irreversible damage to
65 their health prevented their involvement in self-care. The theme of 'social circle'
66 held examples of both enabler and barriers in participants' uptake of risky

67 behaviours. Health and social services should work with persons experiencing
68 homelessness in designing and delivering targeted interventions that address
69 contextual barriers, multi-morbidity, health literacy and self-efficacy.

70

71 **Keywords:** Self-care, Homelessness, Health Behaviours

72

73 **What is known about this topic?**

- 74 • Ill health is a potential cause and consequence of homelessness but self-care
75 can prevent and mitigate ill health
- 76 • A need to better understand self-care needs of people experiencing
77 homelessness has recently been emphasised in health and social care policies
78 across the UK
- 79 • There is a dearth of research exploring wider aspects of self-care amongst
80 people experiencing homelessness as previous research has considered nutrition
81 and diet, and risky behaviours in isolation.

82

83 **What this paper adds?**

- 84 • Study participants experiencing homelessness indicated low engagement in self-
85 care across various domains such as diet, physical and mental health
- 86 • Low engagement in self-care was linked to a lack of resources, multi-morbidity,
87 low health literacy and social influences
- 88 • Targeted interventions that address contextual barriers, multi-morbidity, health
89 literacy and self-efficacy can improve participation in self-care

90

91 **Introduction**

92 In the United Kingdom (UK), people are considered homeless if they no longer
93 have a legal right to occupy their accommodation or if it would no longer be
94 reasonable (e.g. due to safety concerns) to continue living there (GOV.UK, 2015).
95 As such, homelessness takes many forms including sleeping rough, living in
96 derelict buildings, residing in temporary shelters, living in squats or sofa surfing
97 (Homeless link, 2016). Homelessness is on the rise across urban areas of the
98 Western World including the home countries of the UK (Scotland, England, Wales
99 and Northern Ireland) and has been linked to economic austerity. In 2018, nearly
100 twice as many people slept rough on any given night in England compared to
101 2010 (Homeless link, 2017; GOV.UK 2018). In Scotland, over 34,000 people
102 made homelessness applications to their local authority in 2016-17 requesting
103 accommodation (Scottish Public Health Observatory, 2018).

104
105 People experiencing homelessness face significant disadvantages in attaining and
106 maintaining a healthy lifestyle (Baggett *et al.* 2013; Aldridge *et al.* 2017;
107 University of Sheffield, 2012; Fazel *et al.* 2014). They do, therefore, experience
108 poor health outcomes with a prevalence of mental health illness, alcohol and drug
109 misuse, and communicable diseases higher than in the general population.
110 Opioid poisoning, heart failure, infectious diseases, and external causes such as
111 accidents, often contribute to the higher rate of mortality amongst street dwellers
112 (Hwang *et al.* 2005).¹⁰ Those occupying homeless shelters are also known to die
113 at an earlier age than the general population, with the average age of death
114 being 47 years (Hassanally *et al.* 2018).

115
116 Amongst multiple forms of homelessness, rough sleeping pre-disposes individuals
117 to much vulnerability. Government policies in the UK aim to tackle rough sleeping
118 through devolved administrations allowing England, Scotland, Wales and Northern
119 Ireland to develop their own legislations and strategies in preventing and

120 managing rough sleeping. In England, rough sleeping strategy was published in
121 2018 (Gov.UK, 2018) which aims to eliminate homelessness by 2027 by
122 increasing bed spaces in city council accommodations, increasing access to
123 substance misuse and mental health treatment and promoting joined-up care
124 across sectors. 'Housing first' is one of the key interventions to supporting this
125 strategy. Housing First aims to provide 'a stable, independent home and intensive
126 personalised support and case management to homeless people with multiple and
127 complex needs'. It aims to recognise housing as a matter of right than a reward
128 (Homelessness Link, 2016). Further funding to tackle rough sleeping has been
129 allocated by targeting areas with high proportion of rough sleeping in England.
130 Such funding is allocated to offer dedicated support teams and securing additional
131 bed spaces for people experiencing homelessness (Gov.UK, 2018). Other policy
132 interventions to prevent rough sleeping includes Scottish Government's abolition
133 of the priority needs assessment when offering accommodation to persons
134 experiencing homelessness, entitling anyone finding themselves homelessness to
135 settled accommodation and not just to families with children as was the case prior
136 to the Act (The Scottish Government, 2012). Ending homelessness and rough
137 sleeping: action plan' published by the Scottish government in 2018 aims to also
138 tackle homelessness by tackling the root causes including additional support to
139 people with adverse childhood experiences, and developing adversity and trauma
140 informed workforce (The Scottish Government, 2018).

141

142 Addressing health inequalities requires a specific focus on the disadvantaged
143 population. In particular, preventative services are known to be effective in
144 alleviating the health impact of homelessness. Self-care, as defined by the World
145 Health Organisation, is the ability of individuals, families and communities to
146 promote health, prevent disease, maintain health, and to cope with illness and
147 disability with or without the support of a healthcare provider (WHO, 2013), has
148 been shown to prevent and mitigate ill health including long term illnesses. The

149 principles of self-care which can be applied to prevention and management of ill
150 health are known to have arisen from a number of theoretical models such as the
151 theory of self-regulation. Self-regulation models emphasise the importance of
152 self-efficacy (Bandura, 2005), which relates to an individual's belief in their ability
153 to learn and perform specific behaviours; and self-management (Lorig and
154 Holman, 2003) which relates to adoption into practice of such behaviours. Self-
155 efficacy often reinforces self-management. Self-management strategies, including
156 patient-led self-care support groups, have also been shown to improve clinical
157 outcomes amongst patients in a variety of long term illnesses (Minet *et al.* 2010),
158 including effects on mortality, hospitalisation and quality of life (Ditewig *et al.*
159 2010). Supporting self-care can increase patient satisfaction of health and social
160 care services, and enables greater integration of health and social care. In the
161 UK, self-care features in the National Health Services plan as one of the key
162 building blocks for a patient-centred health service (Department of Health, 2018).

163 It is important however to understand that within the spectrum of patient care,
164 most care is shared care involving primary, secondary or tertiary health care and
165 social care, and can involve a small or large components of self-care
166 (Department of Health, 2005). In chronic and debilitating health conditions,
167 people's participation in self-care is often minimal, whereas self-care occupies
168 greater share in management of acute and non-debilitating conditions. Self-care
169 practice is also dependent on context-specific factors including available resources
170 and individuals hence should not be blamed for non-participation in self-care.

171

172 The seven pillars of self-care provide a framework to consider a wide range of
173 activities relevant from the self-carer perspectives (International Self Care
174 Foundation, 2018) (table 1). These include awareness of physical and mental
175 health, health literacy and health seeking behaviour, healthy eating, hygiene,
176 physical activity and sleep, and risk avoidance. The seven pillars of self-care
177 framework, proposed by the International Self Care Foundations postulates that

178 unhealthy behaviours such as smoking, excess consumption of alcohol, poor diet
179 and insufficient exercise often tend to cluster together (International Self Care
180 Foundations, 2018). Similarly, healthy behaviours in the seven pillars also cluster
181 together. **Therefore, promoting one healthy behaviour may motivate individuals**
182 **to uptake other healthy behaviours.** We have previously used the seven pillars
183 framework to identify appropriate interventions to promote self-care in offshore
184 workers (Smith *et al.* 2018, Gibson Smith *et al.* 2018a).

185

186 Table 1 to appear here

187

188 Ill health is a potential cause and consequence of homelessness. A need to better
189 understand supporting self-care and self-management for people experiencing
190 homelessness, have recently been emphasised (The Queen's Nursing Institute,
191 2016). There is a dearth of research exploring wider aspects of self-care amongst
192 people experiencing homelessness as previous research has looked at aspects
193 such as nutrition and diet (Seale *et al.* 2016), risky behaviours (Roerecke *et al.*
194 2013), and health information seeking (McInnes *et al.* 2013) in isolation.

195

196 The aim of this study was to apply a theoretically informed approach in exploring
197 engagement of people experiencing homelessness in undertaking self-care and to
198 identify associated barriers that can be targeted in future health and social care
199 interventions to promote self-care.

200

201 **Method**

202 Qualitative semi-structured, face-to-face, interviews were conducted with patients
203 registered with an SHHC in North East of Scotland, UK between October 2015 and
204 January 2016. This facility provides services to a patient population of
205 approximately 400, of whom approximately 50% are on methadone therapy.

206 Patients aged 18 years and over, presenting for the consultation during the data

207 collection days and those referred by the SHHC staff, were invited to participate.
208 An effort was made to achieve variation in age and sex of the study participants.
209 Researchers on site, who operated in pairs, provided further information about
210 the research. Signed, informed consent was obtained by the researchers prior to
211 interview commencement.

212

213 An interview schedule was developed based on the research aim, experience of
214 the research team, available literature, and the Theoretical Domains Framework
215 (TDF) (Cane *et al.* 2012; Francis *et al.* 2012). TDF is a framework consisting of 33
216 behavioural theories incorporated into 14 domains which allows researchers to
217 identify barriers, facilitators or determinants of a particular behaviour. These
218 include environmental context and resources, knowledge, skills, intentions, goals
219 and behavioural regulations (table 2). TDF has been used extensively in
220 qualitative studies to identify target behaviours for future interventions and to
221 characterise implementation problems (Cane *et al.* 2012; Atkins *et al.* 2017). The
222 researchers have previously used TDF in qualitative studies in identifying barriers
223 of: access to primary healthcare by persons experiencing homeless (Gunner *et al.*
224 2019) and effective transition of care of such persons across services (Gibson-
225 Smith *et al.* 2018b). When using TDF, it is imperative that the framework is used
226 from the outset, including the development of an interview schedule, as the use
227 of TDF at later stages of the research provides challenges in mapping the data
228 against TDF domains (Cane *et al.* 2012; Atkins *et al.* 2017).

229

230 The interview schedule was reviewed for credibility by the research team,
231 including a general practitioner (GP) and a nurse practitioner based at SHHC, a
232 GP practice support pharmacist, a community pharmacist and academic health
233 services researchers. Six pillars of self-care were explored (table 1). The seventh
234 pillar of self-care 'rational and responsible use of medicines and products' was
235 explored in another study (Paudyal *et al.* 2017).

236

237 Table 2 to appear here

238 The interview schedule was piloted amongst four participants. No change in the
239 interview schedule was needed hence the pilot transcripts were analysed together
240 with the main study transcripts. Interviews lasted a maximum of 30 minutes, with
241 trained researchers, were audio-recorded and transcribed verbatim. Participants
242 were recruited until data saturation was achieved, when no new themes emerge,
243 as realised by the researchers during transcription and preliminary analysis of the
244 data. Saturation was assumed based on the repetition of the themes from the
245 subsequent interviews in the context of available data (Saunders *et al.* 2018).

246

247 The Framework Analysis technique (Ritchie *et al.* 2003) was used to guide the
248 analytical process. The data pertaining to each pillar of self-care were coded into
249 a matrix design based on the TDF (table 2). A framework was developed for each
250 of the six pillars of self-care behaviours. Data relevant to these behaviours were
251 mapped to the TDF domains and relevant themes under each domain were listed.

252

253 Researchers (VP, KM and DS) met to discuss initial coding after analysing the first
254 four transcripts. Duplicate, independent checking of the transcripts and analysis
255 was undertaken. Six undergraduate pharmacy students, including two visiting
256 students, conducted duplicate independent analysis of the transcripts based on
257 the coding.

258

259 Ethical and governance (R&D) approval for the study was granted by NHS East
260 Midlands Committee (15/EM/0404) and NHS Grampian (2015RG005)
261 respectively.

262

263 **Results**

264 Twenty-eight patients were interviewed, the majority of whom were male (n=21)
265 with drug misuse being the key reason leading to homelessness (n=17) (table 3).
266 The mean age was 42 years (range: 25-67 years). Most participants had faced
267 homelessness for between six months and four years (n=17) (table 3).

268
269 Table 3 to appear here

270
271 Results from the thematic analysis are described below under each pillar of self-
272 care. Narratives are presented alongside illustrative quotes in this section. The
273 results are then mapped against TDF domains to relate the factors and barriers in
274 relation to participant engagement with each pillar of self-care (table 4).

275

276 **Self-awareness of physical and mental health**

277 Most participants demonstrated knowledge and awareness of their health
278 conditions and the impact of homelessness had on the onset and severity of their
279 illnesses. Health conditions such as mental illness including drug and alcohol
280 misuse, infections, ulcers, asthma, back pain and fatigue were commonly
281 experienced as expressed by participants during the interviews. Participants
282 described their capabilities and motivation to adopt better physical and mental
283 health were compromised due to a lack of stable accommodation. Participants
284 described feeling 'useless' and having suicidal ideation.

285

286 'I tried to kill myself about 5 times. It [homelessness] kicked your self-esteem to
287 death.' 40 year old male

288

289 **Most participants mentioned that they didn't attempt to change anything about**
290 **their health while facing homelessness as health was not high amongst the list of**
291 **priorities given the adversities they were facing.**

292

293 'You care about your drugs, and at the time you think if you (I) die, you (I) die,...
294 you (I) don't care about your health...it doesn't matter, that's what you thought.
295 It's a dark place to be.' 34 year old male

296

297 Participants also mentioned having experienced a lot of stigma and discrimination
298 in society which negatively impacted their physical and mental well-being.

299

300 '...it (homelessness) affects you. People think you are a flaming drug addict,
301 scumbag, all they think ken [sic *know*], look at this mink, ken, sitting begging, get
302 a job, ken. It's nae good, you feel like snapping, and punching the *** out of folk,
303 but you cannae can you. You have got to hold yourself back. Especially on a
304 Saturday night...: '...I've been asked, like by a couple of guys, gay men for sex,
305 ken. Its nae good, they think you're homeless, they think you will do anything for
306 money, ken cause you are begging, ken.' 36 year old male

307

308 **Healthy eating**

309 Most participants described having adequate knowledge on the importance of
310 healthy meals to maintain good health. However, most reported poor access to
311 healthy meals due to lack of resources. One participant described experiences of
312 surviving on chocolates for several weeks. For a few participants, drugs or alcohol
313 would take precedence over food. Lack of appropriate space to prepare and cook
314 meals was commonly mentioned as a barrier. Visits to churches and charities for
315 free meals and accessing cheaper food sources, such as fast food chains, were
316 commonplace behaviours. Participants often had to rely on food given by those
317 passing by when sleeping rough.

318

319 'When you're sitting on the street folk would give you a coke and a sandwich or
320 something, sometimes I would have four, or five or six sandwiches that I would go
321 through but the nutritional (value) is low, so you, you lose a lot, your weight just

322 falls off you... Just nae eating right and taking drugs and alcohol it's just, the
323 weight just falls off you.' 34 year old male

324

325 One participant described the extreme experience of hunger lasting several days
326 where he had no other option than to steal food from a retailer.

327

328 'Ehm, basically I never ate for days, and then it would get to the point that I would
329 get so hungry that I would need to steal a sandwich or something out a shop.'39
330 year old male

331

332 Table 4 to appear here

333

334 **Health literacy and seeking health information**

335 Some participants described experiences of actively seeking health information
336 from their health and social care professionals for a diverse range of health issues
337 including substance misuse. Participants demonstrated awareness of where to
338 seek health information, with the preferred source of information being GPs and
339 nurses at the SHHC and social service counsellors. Participants who had very
340 recently moved to temporary accommodation also mentioned use of the internet
341 to seek health information. However, most participants identified themselves as
342 having low literacy skills and often not being able to interpret health information.

343

344 'I've looked up the internet [about health condition] a couple of times but I don't
345 understand it.' 43 year old Male

346

347 Some participants expressed feeling emotional in relation to discussing their
348 health with their healthcare professionals. This was due to their health being
349 closely linked to the life circumstances they were facing and being uncomfortable
350 discussing such issues with other people.

351

352 'I just don't like new people [healthcare professionals]. I just don't like having to
353 kinda having to repeat everything. I get myself in a muddle and I get all stressed
354 out.' 33 year old female

355 **Personal Hygiene**

356 Maintaining good personal hygiene was a priority for some participants. Those
357 who demonstrated motivation and intentions to remain free from substance
358 misuse mentioned that there was no excuse for not maintaining personal hygiene
359 even when sleeping rough. Some mentioned being advised by charities regarding
360 where to go on a daily basis for a shower. Others would pop in to friends' houses,
361 railway stations, and fast food restaurants to get a 'wash'. Some participants
362 described experiencing insecurity in public clean up facilities which prevented
363 them from using them on a regular basis.

364

365 'We've had to go to McDonalds to have a wash and stuff like that, there is, you will
366 find places, ken fit [sic *know what*] I mean. There is no excuse to be sitting in
367 some state some people are in. OK, your clothes are getting ripped cause you are
368 sitting on pavements all day and stuff like that, ken, you are going to look a mess,
369 doesn't mean that you have got to be stinking, a stinking mess, you know. But it is
370 hard.' 47 year old female

371

372 Other participants described that maintaining good hygiene was challenging due
373 to other life priorities and getting housed in stable accommodation was the only
374 way to maintain good personal hygiene. Therefore some participants were not
375 being personally motivated to wash or dress themselves properly even when they
376 had options and facilities available. Participants expressed emotions when
377 mentioning accounts of being stigmatised because of their poor personal hygiene.

378

379 '...you don't care about long hair, if it's greasy, you don't care if you walk onto a
380 bus and everybody walks off the bus 'cause you smell.' 34 year old male

381

382 **Risk avoidance or mitigation**

383 Most participants admitted to their current or past use of illicit drugs, hazardous
384 drinking of alcohol, and smoking habits. Most participants who admitted
385 substance misuse also mentioned being on opioid replacement therapy (ORT).
386 Social influences were described as key to participants choosing to adopt or give
387 up risky behaviours. However, some participants described lack of self-regulation
388 and behavioural control in helping them to come off the substances. Some also
389 described alcohol and substance misuse as a coping mechanism.

390

391 'Never succeeded, I've tried to give it [alcohol and drug misuse] up but think it's
392 the only thing that keeps my nerves tied together just now so, but just, I think I've
393 done too much damage to repair it anyway so If I'm going to die now, I'm gonna
394 die. I've made my choices, so I've made my bed I'll have to lie in it, sorta thing.
395 That's about it.' 39 year old male

396

397 Participants described going to extremes to obtain money for illicit substances
398 including robbery and prostitution. Some participants described accounts of
399 successfully giving up risky behaviours such as substance and alcohol misuse.

400

401 'When I was on drugs and [I felt] that...if I died one day, I died and then well my
402 life was... when you're on drugs, you see [drugs] making these people die around
403 you. I've been lying in a bed and the boy next to me was dead. It's just, oh well,
404 I'd go into his pockets and take his money and drugs and walk out the house. Aye,
405 that's the way you are. It's a weird, it's a horrible thing drugs. It does it to you,
406 ken [sic *know*], heroin.' 54 year old male

407

408 'I've been totally clean off everything for just over a year in April.. I ended up
409 being in mental health hospital for almost three months. That was like an extended
410 rehab sorta thing, so I like stayed away from everything for 3 months which gave

411 me a fighting chance and I've been clean ever since then. Think I've had one drink
412 in last New Year since then.' 39 year old male

413

414 **Physical activity and sleep**

415 Most participants mentioned engagement in physical activity was beyond their list
416 of priorities. Morbidity, disability or lack of accommodation preventing them
417 taking up physical activities. A few participants expressed disinterest and lack of
418 motivation in engaging in the discussion about aspects of physical activity during
419 the interviews and such lack of self-efficacy was linked to adverse life
420 circumstances.

421

422 'No I've no done nothing (physical exercise) – just nothing at all. Just can't get
423 motivated. That's how I'm waiting to see the psychiatrist and to get on my anxiety.
424 'Cause I couldn't even come down here. Couldn't leave the house or and that's
425 what made us depressed 'cause I like just going right out, ken getting up and
426 going out. I couldn't get out on my own. 34 year old female

427

428 Some participants living in temporary, council offered accommodation described
429 the use of a gym or walking to maintain health. Many described having very little
430 or no sleep while facing homelessness. Lack of stable accommodation was a key
431 barrier to attaining quality sleep. Some mentioned using illicit substances to
432 enable better sleep. Participants described stigma, theft and violence while
433 sleeping rough.

434

435 '... you're sleeping in car parks and everything, freezing cold, ...so you don't get to
436 sleep ken [sic *know*] and folk say, "oh you should come to mines if you're ever
437 stuck", but you never bother, ken, because you knock on somebody's door in the
438 middle of the night they're hardly happy to see you but, eh aye, it was an absolute
439 nightmare because there was no churches letting people in or anything.' 49 year
440 old female

441

442 **Discussion and conclusion**

443 This study has explored homeless from the participants' perspectives on wider
444 aspects of self-care through the use of theory. Engagement in self-care was
445 perceived to be low across several pillars of self-care theory including healthy
446 eating, health information seeking, maintenance of personal hygiene, risk
447 avoidance and mitigation, and maintenance of personal hygiene mainly due to
448 context, resource specific barriers and lack of self-efficacy due to poor perceived
449 health and adverse life circumstances. The use of TDF allowed the barriers and
450 facilitators of participant engagement in self-care to be mapped across domains
451 that could be targeted in future interventions. Most of the barriers related to non-
452 engagement in self-care identified in this study centred on the 'environmental
453 context and resources' domain of TDF and this included lack of stable
454 accommodation. Participants often expressed lack of motivation to uptake healthy
455 behaviours, often compromised by other life priorities.

456

457 In this study, participants alluded to the role of charities and social support in
458 enabling them to undertake self-care such as in enabling a healthy diet or
459 maintaining personal hygiene. There is scope for health and social care
460 professionals to offer such provision at the health or social care centres or to
461 make referrals to services. Emphasis has been placed on healthcare professionals
462 to recognise and screen for nutritional need of people experiencing homelessness
463 and their families (The Queen's Nursing Institute, 2016). Participants in this study
464 expressed low health literacy and hence health and social care professionals need
465 to be aware of these barriers when referring people experiencing homelessness to
466 sources of information. Participants described being emotionally vulnerable when
467 discussing their health and self-care issues with the healthcare professionals
468 because issues were closely linked to their life circumstances. Our previous study
469 identified that rapport with health and social care workers was a key factor in

470 homeless people's preference to use SHHC facilities, even when they had
471 relocated to permanent accommodation (Paudyal *et al.* 2018).
472
473 Most of the barriers to the uptake of self-care including healthy eating and
474 physical activity were linked by participants of this study to their lack of
475 accommodation. In England, the Homeless Reduction Act is coming into effect in
476 2018 (Paudyal and Saunders, 2018) following a similar homelessness legislation
477 in Wales in 2014 (The Welsh government, 2014). While the effectiveness of this
478 Act is yet to be evaluated, the Act mandates health and social care services to
479 refer people who are at risk of or facing homelessness to local authorities for the
480 provision of accommodation. Policy interventions such as **The Housing First**
481 **initiative (Homeless Link, 2016) are likely to address context and resource related**
482 **barriers. Research evidence demonstrates that Housing First initiative decreases**
483 **homelessness and increases housing retention rates and decreases the use of**
484 **emergency health services, and emergency shelters, particularly in people with**
485 **severe mental health and substance misuse problems (Woodhall-Melnik and**
486 **Dunn, 2018).** Screening people experiencing homelessness for mental and
487 physical health conditions during their housing needs assessment provides an
488 effective strategy for early intervention (Weinstein *et al.* 2013).
489
490 There is a lack of previous literature exploring wider aspects of self-care within a
491 population of people experiencing homelessness as the literature often tends to
492 focus on a single behaviour at a time. Therefore, only a limited comparison to
493 previous literature could be undertaken. A recent study in the United States
494 showed that poorer self-rated health was associated with the desire to reduce
495 hazardous drinking and increase fruit and vegetable consumption in this
496 population (Taylor *et al.* 2016). A recent review of the literature demonstrated
497 evidence of malnutrition including saturated fat, low fruit and vegetable intake
498 and numerous micro-nutrient deficiencies, amongst people experiencing

499 homelessness, often leading to physical and mental health consequences (Sprake
500 *et al.* 2014). Furthermore, that review noted the search for food often takes
501 priority over healthcare and access to medicines (Paudyal *et al.* 2017).

502

503 Strengths and limitations

504 This study is, to the best of our knowledge, the first to explore people
505 experiencing homelessness' perspectives on wider self-care aspects. Duplicate
506 and independent analysis of the data enabled trustworthiness of the findings. Use
507 of theory enabled mapping of the key barriers and facilitators of engagement in
508 self-care across domains of the TDF, the pillars of self-care and provides specific
509 targets for future interventions.

510

511 This study has some limitations. Some participants of this study had recently
512 been temporarily or permanently housed despite the use of the SHHC and were
513 waiting to relocate to mainstream general practices. Such participants provided
514 their retrospective accounts. The study participants were predominantly male,
515 however, this reflects the data trend of persons experiencing homelessness. Only
516 the patients with good rapport with the healthcare staff were included. This
517 approach was used to ensure the safety of both the researchers and research
518 participants. Therefore, views may not be representative of all participants from
519 the study setting. In addition, the researchers used the transcripts and initial
520 analysis when assuming data saturation. As reported in the literature, this is a
521 common barrier to ascertaining saturation in qualitative studies (Saunders *et al.*
522 2018).

523

524 Practice and research implications

525 The results of this study suggest that promotion of self-care amongst people
526 experiencing homelessness requires addressing the resource-related barriers such
527 as provision of stable accommodation and their co-morbidities. Such barriers

528 collectively compromises their self-efficacy and motivation to uptake self-care. In
529 addition, the results provide recommendations for the development,
530 implementation and evaluation of health and social care interventions that can
531 positively impact on their self-confidence, belief about capabilities, intentions and
532 behavioural regulations. The Medical Research Council, UK provides a framework
533 (Craig *et al.* 2013) for development of complex interventions. This study provides
534 targeted areas for multi-faceted interventions and the data provides a valuable
535 foundation on which to base development of interventions. It has been postulated
536 that unhealthy behaviours, such as poor diet, drugs and alcohol misuse, tend to
537 “cluster” together in individuals (International Self Care Foundations, 2018), so as
538 the healthy behaviours cluster amongst certain sectors of the population. Such
539 multi-faceted targeted interventions can be delivered at temporary
540 accommodations, charities, outreach services, or health and social care settings
541 that can enable homeless population to develop their self-confidence, improve
542 health seeking behaviour and their intentions to lead a healthy lifestyle. People
543 sleeping rough will also benefit from provision of healthy diet, tailored health
544 related information, facilities for personal hygiene under one roof.

545

546 Poor mental health including the experience of stigma and discrimination was a
547 recurrent theme in the data. Poor mental health can often be the cause and
548 consequences of homelessness (Bowen *et al.* 2019). Various barriers to people’s
549 access to mental health services have been described in the literature with
550 concurrent substance misuse and history of self-harm often excluding patients
551 access to mental health services (Gunner *et al.* 2019). Hence, people
552 experiencing homelessness may benefit from multi-morbidity models of case
553 management, and these are best embedded as part of housing-related
554 interventions such as the Housing First initiative (Aubry *et al.* 2015). The
555 Assertive Community Treatment (ACT) is one example where multi-morbidity
556 including mental health and substance misuse is managed by a multidisciplinary

557 team with home based treatment and out of hours availability by also integrating
558 peer support (Nugter *et al.* 2016). Stigma and discrimination were also commonly
559 cited in relation to societal attitude towards homelessness and people
560 experiencing homelessness. However, previous research showed that people
561 experiencing homelessness also face stigma and discrimination when accessing
562 health services (Paudyal *et al.* 2018; Gunner *et al.* 2019). Anti-stigma
563 interventions for healthcare professionals such as the 'targeting the roots of
564 healthcare provider stigma' which involves improving the ability of healthcare
565 professionals to cope with the feelings and emotions when working with
566 vulnerable patients; improving their competence and the confidence of staff; and
567 addressing the lack of awareness of one's own prejudices have been shown to
568 minimise perceived stigma and discrimination (Knaak and Patten, 2016). In
569 addition, health and social care workers are able to better support people
570 experiencing homelessness when they have the knowledge of patients'
571 backgrounds and life circumstances (Padget and Henwood, 2012).

572

573 While health professionals based in specialist homelessness healthcare facilities
574 may be more aware of the factors associated with non-engagement of people
575 experiencing homelessness in self-care, as identified in this study, many
576 homeless patients use mainstream services or may not come in contact with
577 healthcare staff. Wider awareness will enable health promotion and self-care
578 improvement in this population. Health and social services should avoid blaming
579 individuals for their behaviours and low perceived engagement in self-care as
580 often many of these barriers including context and societal factors need system
581 based approach for change.

582

583 **Conclusion**

584 Low engagement in self-care was noted amongst the study participants. There is
585 scope for targeted interventions focused on specific determinants to promote

586 each pillar of self-care by addressing contextual barriers, physical and mental co-
587 morbidities, health literacy and people's self-efficacy. Health and social services
588 should work with persons experiencing homelessness in designing and delivering
589 targeted interventions.

590
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597

598 References

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- 601 • Aldridge, R. W., Story, A., Hwang, S. W., Nordentoft, M., Luchenski, S. A., Hartwell, G &
602 Hayward, A. C. (2017). Morbidity and mortality in homeless individuals, prisoners, sex workers,
603 and individuals with substance use disorders in high-income countries: a systematic review and
604 meta-analysis. *The Lancet* 391(10117):241-50. [https://doi.org/10.1016/S0140-6736\(17\)31869-X](https://doi.org/10.1016/S0140-6736(17)31869-X)
- 605 • Atkins L, Francis J, Islam R, O'Connor D, Patey A, Ivers N, Foy R, Duncan EM, Colquhoun H,
606 Grimshaw JM, Lawton R. (2017). A guide to using the Theoretical Domains Framework of
607 behaviour change to investigate implementation problems. *Implementation Science*: 12(1):77.
608 <https://doi.org/10.1186/s13012-017-0605-9>
- 609 • Atkins, L., Francis, J., Islam, R., O'Connor, D., Patey, A., Ivers, N., Foy, R., Duncan, E.M.,
610 Colquhoun, H., Grimshaw, J.M., Lawton, R. (2017). A guide to using the Theoretical Domains
611 Framework of behaviour change to investigate implementation problems. *Implementation*
612 *Science* 12(1):77. <https://doi.org/10.1186/s13012-017-0605-9>
- 613 • Aubry, T., Goering, P., Veldhuizen, S., Adair, C.E., Bourque, J., Distasio, J., Latimer, E.,
614 Stergiopoulos, V., Somers, J., Streiner, D.L. and Tsemberis, S. (2015). A multiple-city RCT of
615 housing first with assertive community treatment for homeless Canadians with serious mental
616 illness. *Psychiatric Services*, 67(3), pp.275-281. doi: 10.1176/appi.ps.201400587.
- 617 • Baggett, T. P., Hwang, S. W., O'Connell, J. J., Porneala, B. C., Stringfellow, E. J., Orav, E. J.,
618 Rigotti, N. A. (2013). Mortality among homeless adults in Boston: shifts in causes of death over
619 a 15-year period. *JAMA internal medicine*, 173(3), 189-195.
620 Doi:10.1001/jamainternmed.2013.1604
- 621 • Bandura A. (2005). The primacy of self-regulation in health promotion. *Applied Psychology-an*
622 *International Review*. 54[2]:245-254. <http://dx.doi.org/10.1111/j.1464-0597.2005.00208.x>
- 623 • Bowen, M., Marwick, S., Marshall, T., Saunders, K., Burwood, S., Yahyouche, A., Stewart, D.
624 and Paudyal, V. (2019). Multimorbidity and emergency department visits by a homeless
625 population: a database study in specialist general practice. *British Journal of General Practice*,
626 p.bjgp19X704609. DOI: <https://doi.org/10.3399/bjgp19X704609>
- 627 • Cane, J., O'Connor, D., & Michie, S. (2012). Validation of the theoretical domains framework
628 for use in behaviour change and implementation research. *Implementation science*, 7(1), 37.
629 <https://doi.org/10.1186/1748-5908-7-37>
- 630 • Craig, P., Dieppe, P., Macintyre, S., Michie, S., Nazareth, I., & Petticrew, M. (2013).
- 631 • Department of communities and Local Government (2015). *Statutory Homelessness in*
632 *England*. Available:
633 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437273/201503_Statutory_Homelessness.pdf. Accessed 20 March 2016.
- 634 • Department of Health (2018). *Self care*. Available:
635 <http://webarchive.nationalarchives.gov.uk/20090216230833/http://www.dh.gov.uk/en/Healthcare/Selfcare/index.htm>. Accessed 23 April 2018.
- 636 • Department of Health. (2005). *Self care: A real choice; Self care: A practical option*. Department
637 of Health. London.
- 638
- 639

640 Developing and evaluating complex interventions: the new Medical Research Council
641 guidance. *International journal of nursing studies*, 50(5), 587-592.
642 <https://doi.org/10.1136/bmj.a1655>

- 643 • Ditewig, J. B., Blok, H., Havers, J., & van Veenendaal, H. (2010). Effectiveness of self-
644 management interventions on mortality, hospital readmissions, chronic heart failure
645 hospitalization rate and quality of life in patients with chronic heart failure: a systematic
646 review. *Patient education and Counseling*, 78(3), 297-315. doi: 10.1016/j.pec.2010.01.016.
- 647 • Fazel, S., Geddes, J. R., & Kushel, M. (2014). The health of homeless people in high-income
648 countries: descriptive epidemiology, health consequences, and clinical and policy
649 recommendations. *The Lancet*, 384(9953), 1529-1540. 10.1016/S0140-6736(14)61132-6
- 650 • Francis, J. J., O'Connor, D., & Curran, J. (2012). Theories of behaviour change synthesised
651 into a set of theoretical groupings: introducing a thematic series on the theoretical domains
652 framework. *Implementation Science*, 7(1), 35. DOI: 10.1186/1748-5908-7-35
- 653 • Gibson Smith, K.L., Paudyal, V., Klein, S. and Stewart, D.C. (2018). Health, self-care and the
654 offshore workforce: opportunities for behaviour change interventions, an epidemiological
655 survey. *Rural and Remote Health* [online], 18(2). doi: 10.22605/RRH4319
- 656 • Gov. UK. (2018). The rough sleeping strategy. Available
657 <https://www.gov.uk/government/publications/the-rough-sleeping-strategy>. Accessed 14 May
658 2019.
- 659 • Gov.UK. (2018). Funding allocated for councils to help rough
660 sleepers [https://www.gov.uk/government/news/funding-allocated-for-councils-to-help-rough-](https://www.gov.uk/government/news/funding-allocated-for-councils-to-help-rough-sleepers)
661 [sleepers](https://www.gov.uk/government/news/funding-allocated-for-councils-to-help-rough-sleepers) . Accessed 20 July 2019.
- 662 • GOV.UK. (2019) Homelessness statistics: Statutory homelessness in England. Available at:
663 <https://www.gov.uk/government/collections/homelessness-statistics>. Accessed 16 March 2019.
- 664 • Gunner, E., Chandan, S.K., Marwick, S., Saunders, K., Burwood, S., Yahyouche, A. and
665 Paudyal, V. (2019). Provision and accessibility of primary healthcare services for people who
666 are homeless: a qualitative study of patient perspectives in the UK. *British Journal of General
667 Practice*. p. bjgp19X704633. DOI: <https://doi.org/10.3399/bjgp19X704633>
- 668 • Hassanally, K., Asaria, M. (2018). Homeless mortality data from East London. *London Journal
669 of Primary Care*, 4:1-4. <https://doi.org/10.1080/17571472.2018.1458443>
- 670 • Homeless link (2016). About homelessness. Available: [http://homeless.org.uk/about-](http://homeless.org.uk/about-homelessness#.UjxuEj_mDBY)
671 [homelessness#.UjxuEj_mDBY](http://homeless.org.uk/about-homelessness#.UjxuEj_mDBY). Accessed 05 March 2016.
- 672 • Homeless Link. 2016. Housing First in England: The principles.
673 [https://www.homeless.org.uk/sites/default/files/site-](https://www.homeless.org.uk/sites/default/files/site-attachments/Housing%20First%20in%20England%20The%20Principles.pdf)
674 [attachments/Housing%20First%20in%20England%20The%20Principles.pdf](https://www.homeless.org.uk/sites/default/files/site-attachments/Housing%20First%20in%20England%20The%20Principles.pdf). Accessed 14 May
675 2019.
- 676 • Homelessness link (2017). Rough sleeping — our analysis. Available at:
677 [http://www.homeless.org.uk/facts/homelessness-in-numbers/rough-sleeping/rough-sleeping-](http://www.homeless.org.uk/facts/homelessness-in-numbers/rough-sleeping/rough-sleeping-our-analysis)
678 [our-analysis](http://www.homeless.org.uk/facts/homelessness-in-numbers/rough-sleeping/rough-sleeping-our-analysis). (accessed 20 April 2017).
- 679 • Hwang, S. W., Tolomiczenko, G., Kouyoumdjian, F. G., & Garner, R. E. (2005). Interventions to
680 improve the health of the homeless. *American journal of preventive medicine*, 29(4), 311-311.
681 DOI: <https://doi.org/10.1016/j.amepre.2005.06.017>
- 682 • International Self Care Foundations (2018). The seven pillars of self care. Available:
683 <http://isfglobal.org/practise-self-care/the-seven-pillars-of-self-care/>. Accessed Accessed 23
684 April 2018.
- 685 • Knaak, S., Patten, S. (2016). A grounded theory model for reducing stigma in health
686 professionals in Canada. *Acta Psych Scan*, 134:53-62. doi: 10.1111/acps.12612.
- 687 • Lorig, K.R., Holman, H.R. (2003). Self-management education: History, definition, outcomes,
688 and mechanisms. *Annals of Behavioral Medicine*. 26[1]:1-7. DOI:
689 10.1207/S15324796ABM2601_01
- 690 • McInnes, D. K., Li, A. E., & Hogan, T. P. (2013). Opportunities for engaging low-income,
691 vulnerable populations in health care: a systematic review of homeless persons' access to and
692 use of information technologies. *American journal of public health*, 103(S2), e11-e24. DOI:
693 10.2105/AJPH.2013.301623.
- 694 • Minet, L., Møller, S., Vach, W., Wagner, L., & Henriksen, J. E. (2010). Mediating the effect of
695 self-care management intervention in type 2 diabetes: a meta-analysis of 47 randomised
696 controlled trials. *Patient Education and Counseling*, 80(1), 29-41. doi:
697 10.1016/j.pec.2009.09.033.
- 698 • Nugter, M.A., Engelsbel, F., Bähler, M., Keet, R. and van Veldhuizen, R., 2016. Outcomes of
699 FLEXIBLE assertive community treatment (FACT) implementation: a prospective real life
700 study. *Community Mental Health Journal*, 52(8), pp.898-907. [https://doi.org/10.1007/s10597-](https://doi.org/10.1007/s10597-015-9831-2)
701 [015-9831-2](https://doi.org/10.1007/s10597-015-9831-2)
- 702 • Padgett, D.K. & Henwood, B.F. (2012). Qualitative research for and in practice: Findings from
703 studies with homeless adults who have serious mental illness and co-occurring substance
704 abuse. *Clinical Social Work Journal*, 40(2), 187-193. 10.1007/s10615-011-0354-1

705 • Paudyal, V., MacLure, K., Buchanan, C., Wilson, L., Macleod, J., & Stewart, D. (2017). 'When
706 you are homeless, you are not thinking about your medication, but your food, shelter or heat for
707 the night': behavioural determinants of homeless patients' adherence to prescribed
708 medicines. *Public health*, 148, 1-8. doi: 10.1016/j.puhe.2017.03.002.
709 • Paudyal, V., Sunders, K. (2018). Introduction of homeless reduction act in England: impact on
710 health services. *Lancet*, 392 (10143), 195-197.
711 • Ritchie, J., Spencer, L., & O'Connor, W. (2003). Carrying out qualitative analysis. *Qualitative
712 research practice: A guide for social science students and researchers*. SAGE
713 Publications.London.
714 • Roerecke, M., & Rehm, J. (2013). Alcohol use disorders and mortality: a systematic review and
715 meta-analysis. *Addiction*, 108(9), 1562-1578. doi: 10.1111/add.12231.
716 • Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., Jinks
717 C. (2018). Saturation in qualitative research: exploring its conceptualization and
718 operationalization. *Quality & quantity*, 1;52(4):1893-907. [https://doi.org/10.1007/s11135-017-
719 0574-8](https://doi.org/10.1007/s11135-017-0574-8)
720 • Seale, J. V., Fallaize, R., & Lovegrove, J. A. (2016). Nutrition and the homeless: the
721 underestimated challenge. *Nutrition research reviews*, 29(2), 143-151. DOI:
722 10.1017/S0954422416000068
723 • Smith KG, Paudyal V, Quinn F, Klein S, Stewart D. (2018). Offshore workers and health
724 behaviour change: an exploration using the Theoretical Domains Framework. *International
725 maritime Health*, 69(4):248-56. doi: 10.5603/IMH.2018.0040
726 • Smith, K. G., Paudyal, V., MacLure, K., Forbes-McKay, K., Buchanan, C., Wilson, L., Stewart,
727 D. (2018). Relocating patients from a specialist homeless healthcare centre to general
728 practices: a multi-perspective study. *Br J Gen Pract*, 68 (667), e105-e113. doi:
729 10.3399/bjgp18X694577
730 • Sprake, E.F., Russell, J.M., Barker, M.E. (2014). Food choice and nutrient intake amongst
731 homeless people. *Journal of Human Nutrition and Dietetics*, 27(3):242-50. doi:
732 10.1111/jhn.12130
733 • Taylor EM, Kendzor DE, Reitzel LR, Businelle MS. (2016). Health risk factors and desire to
734 change among homeless adults. *American journal of health behaviour*, 1;40(4):455-60. doi:
735 10.5993/AJHB.40.4.7
736 • The Queen's Nursing Institute (2016). Food, Nutrition and Homelessness. Available:
737 https://www.qni.org.uk/wp-content/uploads/2016/09/nutrition_guidance.pdf. Accessed 23 April
738 2018.
739 • The Scottish Government. (2012). The Homelessness (Abolition of Priority Need Test)
740 (Scotland) Order 2012. Available: <http://www.legislation.gov.uk/ssi/2012/330/contents/made>.
741 Accessed 14 May 2018.
742 • The Scottish Government. (2018). Ending homelessness and rough sleeping: action plan.
743 <https://www.gov.scot/publications/ending-homelessness-together-high-level-action-plan/>.
744 Accessed 20 July 2019.
745 • The Scottish Public Health Observatory (2018). Homelessness: demographics. Available:
746 <http://www.scotpho.org.uk/life-circumstances/homelessness/data/demographics/>. Accessed 23
747 April 2018.
748 • The University of Sheffield and Crisis (UK) (2012). An analysis of the mortality of homeless
749 people in early twenty-first century England. Available:
750 https://www.crisis.org.uk/media/236799/crisis_homelessness_kills_es2012.pdf. Accessed 23
751 April 2018.
752 • The Welsh Government. (2014). The Housing (Wales) Act 2014. Available:
753 <http://www.legislation.gov.uk/anaw/2014/7/contents>. Accessed 14 May 2018.
754 • Weinstein, L. C., LaNoue, M., Collins, E., Henwood, B. F., & Drake, R. E. (2013). Health care
755 integration for formerly homeless people with serious mental illness. *Journal of Dual Diagnosis*,
756 9(1), 72-77. <https://doi.org/10.1080/15504263.2012.750089>
757 • Woodhall-Melnik, J.R. and Dunn, J.R. (2016). A systematic review of outcomes associated with
758 participation in Housing First programs. *Housing Studies*, 31(3), pp.287-304.
759 <https://doi.org/10.1080/02673037.2015.1080816>
760 • World Health Organisation. Self-care for health (2013). Available
761 [http://apps.who.int/iris/bitstream/handle/10665/205887/B5084.pdf;jsessionid=9A88B65500EC3
762 FF7EDF2F63A87D5844A?sequence=1](http://apps.who.int/iris/bitstream/handle/10665/205887/B5084.pdf;jsessionid=9A88B65500EC3FF7EDF2F63A87D5844A?sequence=1). Accessed 23 April 2018.
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765 **Table 1: Pillars of self-care**

Pillars of Self-care	Example of topic guide prompts based on TDF
Self-awareness of physical and mental condition and use of health services	Awareness about their health and illness, use of healthcare services
Healthy eating	Seeking and consuming healthy food and balanced diet
Health literacy and seeking health related information	Whether participants actively seek health related information, ability to access and interpret information
Good hygiene	Maintenance of personal hygiene and associated barriers and facilitators
Physical activity and sleep	Physical activity levels, associated barriers and facilitators
Risk avoidance or mitigation	Substance misuse including drugs, alcohol and illicit substances
Rational and responsible use of medicines, services and products	Using medicines, services and products responsibly when necessary

766 Source: International Self Care Foundation (2018)

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768

769 **Table 2: Theoretical domains framework (TDF)**

TDF domains and descriptions	
1. Knowledge	Knowledge of condition /scientific rationale, Procedural knowledge, Knowledge of task environment
2. Skills	Skills, skill development, Competence, Ability, Interpersonal skills, Practice Skill assessment
3. Social/ Professional Role and Identity	Professional identity, Professional role, Social identity, Identity, Professional boundaries, Professional confidence Group identity, Leadership, Organisational commitment
4. Beliefs about Capabilities	Self-confidence, Self-confidence Perceived competence Self-efficacy Perceived behavioural control Beliefs Self-esteem Empowerment Professional confidence
5. Optimism	Optimism Pessimism Unrealistic optimism, Identity
6. Beliefs about Consequences	Outcome expectancies, beliefs, anticipated regret, consequents
7. Reinforcement	Incentives, Rewards (proximal/distal, valued/not valued, probable/improbable), Incentives, Punishment, Consequents, Reinforcement, Contingencies, Sanctions
8. Intentions	Stability of intentions, Stages of change model, Trans. model/stages of change
9. Goals	Goals (distal/proximal), Goal priority, Goal / target setting, Goals (autonomous/controlled), Action planning Implementation intention
10. Memory, Attention and Decision Processes	Memory, attention, decision making, cognitive overload, tiredness
11. Environmental Context and Resources	Environmental stressors, Resources / material resources, Barriers and facilitators, Organisational culture /climate Person x environment interaction, Salient events / critical incidents
12. Social influences	Social pressure, Social norms, Group conformity, Social comparisons, Group norms, Social support, Intergroup, conflict, Power, Group identity, Alienation, Modelling
13. Emotion	Anxiety, Fear, Affect, Stress, Depression, Positive / negative affect, Burn-out,
14. Behavioural Regulation	Self-monitoring, Breaking habit, Action planning

770 Adapted from Cane *et al.* 2012, Atkins *et al.* 2017

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Table 3: Participant demography

	Demographic Data	Number of Participants (%)
Sex (n=28)	Male	21 (75.0)
	Female	7 (25.0)
Age (n=28)	25-35 years old	9 (32.1)
	36-45 years old	10 (35.7)
	46-67 years old	9 (32.1)
Highest Level of Education (n=28)	Left school before 16	6 (21.4)
	Left school with GCSE/CSE/O-Level/Standard Grade or equivalent	14 (50.0)
	Left school with A-Level/Higher or equivalent	4 (14.3)
	University degree	1 (3.6)
	Other	3 (10.7)
Marital Status (n=28)	Single	16 (57.1)
	Divorced or separated	2 (7.1)
	Widowed	2 (7.1)
	Living with a partner (co-habiting)	6 (21.4)
	In a long term relationship	2 (7.1)
Where do you normally sleep? (n=28)	Hostel	5 (17.9)
	Council, housing association	11 (39.3)
	Sleeping rough	2 (7.1)
	Other such as with friends or relatives, B&B, Caravan	5 (17.9)
	Privately rented or owned accommodation	3 (10.7)
	Other	2 (7.1 (bedsit & shared house))
	Where do you normally obtain daily essentials?*(n=27)	Mostly buys own food
How did you become homeless?*(n=28)	Churches	4 (14.3)
	Charity shelters or hostels	4 (14.3)
	Friends or relatives	5 (17.9)
	Begging	1 (3.6)
	Other	5 (17.9)
	Alcohol misuse	3 (10.7)
	Drug misuse	17 (60.7)
How long have you been homeless for? (n=28)	Gambling	2 (7.1)
	Abusive situation	3 (10.7)
	Relationship breakdown	7 (25.0)
	Injury	0 (0.0)
	Loss of Job	2 (7.1)
	Mental Illness	8 (28.6)
	Other	9 (32.1)
How old were you when you first became homeless? (n=27)	Less than 6 months	5 (17.9)
	6 months to a year	8 (28.6)
	1-2 years	6 (21.4)
	3-4 years	3 (10.7)
	5 or more years	6 (21.4)
Responsible for any children? (n=28)	Younger than 20 years old	8 (28.6)
	Between 20 - 30 years old	6 (21.4)
	Older than 30 years old	13 (46.4)
Employment Status (n=28)	Yes	7 (25.0)
	No	21 (75.0)
	Unemployed and currently not looking for work	20 (71.4)
	Unemployed and currently looking for work	4 (14.3)
	Unemployed and student	1 (3.6)
	Employed full time	2 (7.1)
	Employed part time	0 (0.0)
How would you describe your general health? (n=28)	Retired	1 (3.6)
	Very good	1 (3.6)
	Good	4 (14.3)
	Fair	9 (32.1)
	Bad	12 (42.9)
	Very bad	2 (7.1)

774 *multiple choices were allowed

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Table 4: Results of framework analysis

TDF^{18,19} domains	Self-awareness of physical and mental health	Healthy eating	Health literacy (Health information seeking behaviour)	Personal hygiene	Risk avoidance Rational and responsible use of products, services, diagnostics and medicines	Physical activity and rest (sleep)
1. Knowledge	Knowledge of personal health conditions, knowledge of the impact of homelessness on health	Knowledge (or lack of) about nutritional values of food; knowledge of the role of good food on health	Knowledge (or lack of) where to seek health information	Knowledge about facilities available in the locality for a wash	Knowledge of drug misuse about negative impact on health	Knowledge on the importance of physical activity or quality sleep to health Knowledge about medicines prescribed for better sleep quality
2. Skills		Lack of skills to prepare (cook) food	Ability (or lack of) to interpret health related information available online			
3. Social/ Professional Role and Identity	Being personally responsible for the homelessness and poor health		Identity as a patient, being an 'open book'		Social influence in taking up and giving up risky behaviours	Identity as a 'rough sleeper'
4. Beliefs about Capabilities	Losing self esteem	Poor health impacting on ability to eat healthily... not being able to 'open a tin.'	Self-confidence in asking health information from other individuals	'Nothing I could do' to maintain personal hygiene	Self-confidence in avoidance of risky behaviours	Disability, morbidity impacting Self-confidence or lack of in using physical exercise facilities
5. Optimism	Pessimistic about bringing positive change to health				Having already done 'irreversible' damage to health	Pessimistic about adopting better sleep pattern
6. Beliefs about Consequences	Consequences of prolonged homelessness on health	Consequences of not eating healthily			Consequences of illicit use of drugs, smoking and alcohol misuse to the health of	Consequences of good physical activity and sleep on health

7. Reinforcement	Positive health to enable job, work Lack of motivation to maintain health in temporary accommodation					
8. Intentions	Intention (or lack of) to maintain a good health such as keeping warm	Intention to eat healthily, e.g. through family, friends, charities	Intention (or lack of) to seek health information	Intention (or lack of) to remain clean	Intentions to come off drugs, smoking or alcohol	Lack of intentions to exercise Intentions to sleep well Seeking medications for better sleep quality
9. Goals	Good health a goal or in the 'back burner' Decision to make positive changes to health	Non-intention to spend on good food due to illicit drug habits Eating healthily a goal or not a goal		'More important things to worry about'	Goal setting in giving up risky behaviours	Physical activity not a goal or a priority Too tired to think about exercise, sleeping with 'one eye open'
10. Memory, Attention and Decision Processes						
11. Environmental Context and Resources	Vulnerable/ prone to poor health due to environmental hazards, lack of sleep Barriers of using health services including difficulties registering to the health care services and also lack of	Lack of facilities to store, cook or warm up food Lack of money to buy quality food Charity monetary resource to buy food Shoplifting to satisfy hunger	Resources including doctors, nurses and online sources or lack of seek health information	Lack of facilities for showers, Use of available facilities for shower, Use of limited facilities such as toilets for shower Charity facilitates to wash or dress clean	Importance of rehabilitation centres, methadone programmes and smoking cessation services on participants giving up of risky behaviours	Use of gym and exercises in temporary accommodation Weather having a big impact on sleep quality when rough sleeping

	Not being able to keep warm, Lack of place to store medicines					
Social influences	Alienation due to homelessness, lack of social support in maintaining health	Family and friends support to eating healthily Positive role of health care professional advice on healthy eating		Support from friends and family in maintaining personal hygiene	Social influence on taking up or giving up risky behaviours	Negative social attitude to rough sleeping, violence faced during rough sleeping
13. Emotion	Impact of stigma and discrimination Poor mental health, stress, depression, paranoia, suicidal ideation, feeling vulnerable, lack of self-esteem	Hunger often lasting several days	Mental health issues leading to fear and anxiety in learning new things Reluctance to speak about homelessness and its impact on health to HCPs they are not acquainted with	Fear of abuse due to poor hygiene	Illicit drug use as a coping mechanism	Personal worries disabling any sleep
14. Behavioural Regulation	Adoption (or non-adoption) of positive health behaviour; Adherence to the treatment to improve health	Discontinuation of drugs to eat healthily Attempting to eat as healthily as possible		Being able to maintain hygiene despite sleeping rough, actively seeking shower and clean up facilities	Determination (or lack of) giving up risky behaviours	Walking (instead of public transport) to improve health when no longer homeless

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