

# BMJ Open Workplace-based learning about health promotion in individual patient care: a scoping review

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## ABSTRACT

**Objective** To outline current knowledge regarding workplace-based learning about health promotion in individual patient care.

**Design** Scoping review.

**Data sources** PubMed, ERIC, CINAHL and Web of Science from January 2000 to August 2023.

**Eligibility criteria** We included articles about learning (activities) for healthcare professionals (in training), about health promotion in individual patient care and in the context of workplace-based learning.

**Data extraction and synthesis** The studies were evaluated using a charting template and were analysed thematically using a template based on Designable Elements of Learning Environments model.

**Results** From 7159 studies, we included 31 that described evaluations of workplace-based learning about health promotion, around a variety of health promotion topics, for different health professions. In the articles, health promotion was operationalised as knowledge, skills or attitudes related to specific lifestyle factors or more broadly, with concepts such as health literacy, advocacy and social determinants of health. We assembled an overview of spatial and instrumental, social, epistemic and temporal elements of learning environments in which health promotion is learnt.

**Conclusions** The studies included in our analysis varied greatly in their approach to health promotion topics and the evaluation of learning outcomes. Our findings suggest the importance of providing opportunities for health profession learners to engage in authentic practice situations and address potential challenges they may experience translating related theory into practice. Additionally, our results highlight the need for conscious and articulated integration of health promotion in curricula and assessment structures. We recommend the exploration of opportunities for health profession students, professionals and patients to learn about health promotion together. Additionally, we see potential in using participatory research methods to study future health promotion learning.

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## INTRODUCTION

Promoting health and preventing disease is becoming increasingly important, as the

## STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ We adhered to the scoping review framework presented by Arksey and O'Malley as updated by Levac *et al* and used the PRISMA extension for scoping reviews to guide reporting.
- ⇒ We used an analytical framework that can be used to analyse, design and evaluate learning environments (Designable Elements of Learning Environments), which aids in making insights from the included studies concrete for practice.
- ⇒ For the search strategy, we collaborated with an experienced librarian and a professor in preventive care; however, it is possible that relevant studies were not identified as we did not search all electronic databases available and excluded non-English languages.
- ⇒ We used broad search terms to encompass the concept of 'health promotion in individual patient care' and might have missed studies using more specific terminology.
- ⇒ The heterogeneity of the studies offered a variety of outcomes that determined the 'success' of health promotion learning activities, which precluded our review from reporting a definitive effectiveness assessment for the included learning activities.

burden of illness caused by lifestyle-related chronic diseases continues to rise.<sup>1 2</sup> This requires transformations within the healthcare system, shifting approaches from reactive and biomedical interventions towards preventive care aimed at health promotion (HP), and calls for healthcare providers with expertise to collaborate within their professions, with other healthcare professionals and, most importantly, with their patients.<sup>3</sup>

Policy documents from various healthcare training programmes emphasise the importance of educating healthcare professionals in HP.<sup>4-6</sup> The consecutive implementation of HP learning in curricula is often achieved through traditional teaching methods, such as lectures or assignments.<sup>7 8</sup> However, given that a broader shift is needed to integrate HP practice into the healthcare system,

classroom-based education within conventional curricula is unlikely to be sufficient.<sup>9,10</sup> Ultimately, effecting change in healthcare practice requires shifting HP training from the classroom to practice-based settings.

While there is already a wealth of knowledge about workplace-based learning in healthcare practice (eg,<sup>11–14</sup>) the specific topic of HP is likely to require new types of workplace-based learning or a different design of workplace-based learning environments. To effectively design workplace-based learning for HP, it is crucial to bundle insights from literature about learning environments for this topic. Such an overview is currently lacking. Without this overview, it is unclear how we can move from numerous policies emphasising the importance of HP learning in health profession education towards its implementation in workplace-based learning practices.

To outline current knowledge on workplace-based learning about HP, to inform development of workplace-based learning practices and to identify gaps in literature to inform future research on this topic, this scoping review addresses the research question: *How do healthcare professionals (in training) learn HP in individual patient care through workplace-based learning?*

## METHODS

We deemed a scoping review suitable to answer our research question, as we aimed to explore available knowledge on this broad topic, to further clarify and map key concepts and to define gaps in existing knowledge. The scoping review protocol was registered in the Open Science Framework. To ensure a systematic approach to searching, screening and reporting, we followed the framework presented by Arksey and O'Malley as updated by Levac *et al*, and the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).<sup>15–17</sup>

### Stage 1: identifying the research question

We structured our research question according to population, concept and context.<sup>18</sup>

- ▶ Population: Healthcare professionals and healthcare professionals in training. We chose not to narrow our search to a single health profession, to be able to inform and cross-pollinate across different health (education) fields.
- ▶ Concept: HP in individual patient care. As there is still much debate about the scope of HP practice, we used a broad term. By adding 'individual patient care', we excluded public health as topic.
- ▶ Context: Workplace-based learning. Also named practice-based learning, this is a predominant way of learning in clinical stages of health profession education.

### Stage 2: identifying relevant studies

We constructed a search strategy based on the three concepts described above, consulting with a medical

librarian (OYC, see acknowledgements) and using stakeholder input. The search strategy included Medical Subject Headings and free-text terms combined with Boolean operators. The search strategies for the different databases are included as online supplemental material.

The search was conducted systematically in four databases: PubMed, Education Resources Information Centre, Cumulative Index to Nursing & Allied Health Literature and Web of Science. The search was restricted by English language and by date. We included articles published from January 2000, as we expected older literature to not be relevant because of healthcare and education transitions. The search was conducted on 18 August 2023. Search results were deduplicated in Endnote and exported into Rayyan software for screening purposes.<sup>19</sup> Reference lists of included articles were screened for relevant additional articles.

### Stage 3: selecting studies to be included

The first author (MV) and a second reviewer (AB or RE) independently performed title/abstract screening. Conflicts between reviewers were resolved through discussion and consensus or involvement of a third reviewer. Full-text screening was performed independently by RE and MV using eligibility criteria in [table 1](#).

### Stage 4: charting data

MV developed an initial data extraction form, which was iteratively adapted throughout screening and inclusion. The final version of the form included study characteristics, study outcomes, context of learning, learner characteristics, timing and duration of learning activity, and topic of learning. RE and MV independently extracted data from included articles.

No formal methodological quality assessment was performed because we were expecting a heterogeneous set of articles in this relatively new field of research.

### Stage 5: collating, summarising and reporting results

Characteristics of the included articles were analysed quantitatively by grouping of data and presenting numerical summary analysis. We applied 'best fit' framework-based synthesis for qualitative analysis, through which themes can be identified from included evidence in review-type studies.<sup>20</sup> In 'best fit' framework-based synthesis, a framework of a priori defined themes is used to establish coding categories for deductive analysis. De novo concepts (inductive analysis) are defined for any evidence that cannot be coded against the framework. We chose this method as it allows us to refine existing, relevant theory to the specific context of our research question.

We created an a priori framework through discussions with the research team after data charting, and a literature search for frameworks for workplace-based learning, and learning about HP. The analytical framework is described below. MV coded all included articles, using themes defined in the a priori framework. The research

**Table 1** Eligibility criteria

Inclusion criteria	Exclusion criteria
Learners are <ul style="list-style-type: none"> <li>▶ Healthcare professionals</li> <li>▶ Healthcare professionals in training</li> </ul>	Learners are <ul style="list-style-type: none"> <li>▶ Professionals or students in non-healthcare professions</li> <li>▶ Patients</li> </ul>
Learning is focused on <ul style="list-style-type: none"> <li>▶ Health promotion in the context of an individual healthcare provider – patient/client encounter</li> </ul>	Learning is focused on <ul style="list-style-type: none"> <li>▶ Health promotion aimed at groups or public health</li> <li>▶ Themes such as interprofessional collaboration or cultural competence, with health promotion and/or illness prevention solely being the potential ‘backdrop’ of learning</li> </ul>
Contexts of learning are <ul style="list-style-type: none"> <li>▶ Workplace based: learning in contexts where patients and healthcare professionals physically meet</li> </ul>	Contexts of learning are <ul style="list-style-type: none"> <li>▶ Classroom based</li> <li>▶ Simulated patient encounters</li> <li>▶ Digital spaces (e-learning, extended reality)</li> </ul>
Type of evidence/outcomes <ul style="list-style-type: none"> <li>▶ Quantitative and qualitative research</li> <li>▶ Insight in how healthcare professionals learn in the workplace</li> <li>▶ Descriptions of learning activities with an evaluation of learning (process and/or outcomes)</li> <li>▶ Evaluation of professionals’ or students’ health promotion and/or illness prevention practice, if evaluation includes how they learn/develop in this area</li> </ul>	Type of evidence/outcomes <ul style="list-style-type: none"> <li>▶ Review studies</li> <li>▶ Descriptions of curriculum/course development or implementation, without an evaluation of learning processes or learning outcomes</li> </ul>
Published in year 2000 or later	
Written in English	

team discussed the themes and decided on the reported framework.

### Stage 6: undertaking consultation

The research team is composed of medical doctor and PhD candidate (MV); senior researcher and educationalist (RE); educationalist and PhD candidate (AB); general practitioner and director of a medical education programme (MP); medical doctor, professor of health professions education, and director of the educational institute of a university medical centre (RL); paediatrician, dean of a district teaching hospital, and associate professor of medical education in healthcare networks (AL); and general practitioner and professor in preventive care (WA).

To complement the expertise of the research team, we consulted stakeholders. We consulted WA, professor in preventive care, for input on the review protocol and search strategy; he ultimately joined the research team. MP, director of a medical education programme, was consulted on the relevance of the results; she also joined the research team. In addition, we discussed our results with local initiative group ‘Prevention in the Medical Curriculum’ which consists of healthcare professionals from different professional backgrounds and with a medical student from local initiative group ‘Student and Lifestyle’.

### Analytical framework

We used the Designable Elements of Learning Environments (DELE) model as an analytical framework and to structure our results. This model is based on the Activity-Centred Analysis and Design model by Carvalho and Goodyear and adapted by Bouw *et al* (figure 1).<sup>21 22</sup>

The DELE model can help analyse, design and evaluate learning environments to suit learners’ activities, goals and needs.

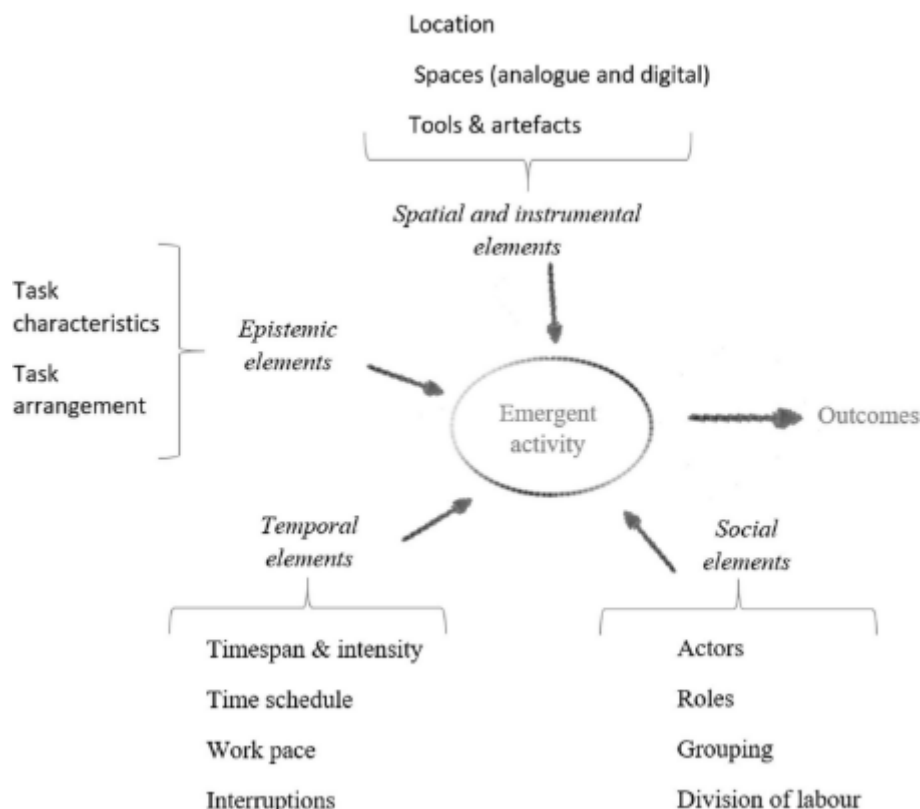
‘Learning environments’ are defined as educational arrangements or systems that are designed and managed and as the sociocultural and physical setting in which learners perform their tasks. Spatial, instrumental, epistemic, temporal and social elements of a learning environment influence which activities learners undertake and consequently which learning outcomes they could achieve. The *spatial and instrumental* elements describe the physical space in which learning takes place and the tools that facilitate learning. *Epistemic* elements refer to ways in which learners’ knowledge and understanding are shaped and challenged as they engage with the learning material and include characteristics of tasks and feedback. The *temporal* elements concern planning, sequence or timeframe of learning activities, and the *social* elements describe the roles of different actors (eg, learners, teachers and clients) in learning environments.

### Patient and public involvement

None.

### RESULTS

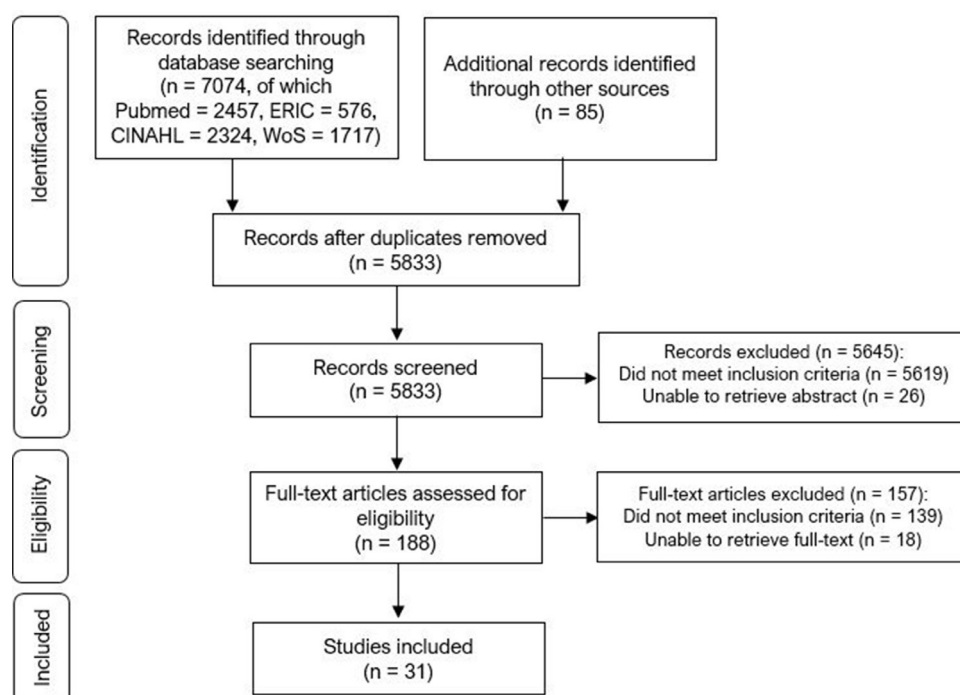
Figure 2 displays the PRISMA flow diagram. Our initial database search retrieved 7074 citations. Hand searching and screening of reference lists of included articles resulted in screening of 85 additional citations. Deduplication resulted in 5833 citations that were screened for eligibility through title/abstract screening. Finally, we included 31 articles in this review. Below, as per our



**Figure 1** Designable Elements of Learning Environments (Bouw et al<sup>21</sup>).

aims, and the customs of a scoping review, we first present the characteristics of available studies on the topic (table 2), and second, we present key concepts related to workplace-based learning for HP (structured according to our analytical framework).

Characteristics of the included studies are shown in table 2. The complete data extraction form is included as online supplemental material. Of the included studies, 24 described the development or evaluation of one or multiple courses, programmes, interventions



**Figure 2** PRISMA flow diagram.

**Table 2** Characteristics of included studies (n=31)

	N (%)	References
Article type		
Description/evaluation of a single course or intervention	19 (61%)	23–41
Description/evaluation of health promotion practice*	7 (23%)	47–53
Description/evaluation of multiple interventions or entire curricula	5 (16%)	42–46
Primary study outcome(s)†		
Qualitative evaluation of learning/learning outcomes	21 (68%)	25 26 28 30 31 34 36 39–41 43–53
Quantitative evaluation of learning/learning outcomes	11 (35%)	24 27 30 32–35 37 38 42 45
Evaluation of the learning activity	4 (13%)	23 29 33 45
Profession†		
Medicine	16 (52%)	23 27 30–35 38–41 43 44 46 50
Nursing	11 (35%)	28 29 32 33 36 47–49 51–53
Allied health‡	7 (23%)	24–26 32 33 42 51
Pharmacy	3 (10%)	32 33 45
Dentistry	1 (3%)	37
Health promotion topic†		
Focused on specific, predetermined risk factor(s)	17 (55%)	23–25 27 29 30 32 34 35 37–39 44 46 50–52
Broad approach to health promotion	14 (45%)	28 29 31 33 35 40 41 43 45 47–49 51 53
Specific target patients	5 (16%)	26 36 42 45 46

\*This category includes articles that evaluate how healthcare professionals perform health promotion in practice, from a learning perspective. In this category, no organised/arranged interventions or learning activities were described.

†Categories are not mutually exclusive. Articles may be included in more than one category.

‡Includes health promotion professionals, occupational therapy, physiotherapy, social work.

or learning environments aimed at learning HP in the workplace.<sup>23–46</sup> Seven studies evaluated how healthcare professionals performed HP in practice, from a learning perspective.<sup>47–53</sup> Twenty-one studies presented qualitative data, based on interviews or focus groups,<sup>28 31 46–53</sup> or learners' written reflections.<sup>25 26 28 30 34 36 39–41 43–45</sup> Eleven studies reported the use of quantitative data, such as academic performance (grades),<sup>24 27 45</sup> and/or quantitative questionnaires, such as pre-/post-learning activity (eg, to measure progression of knowledge or change in attitude)<sup>27 30 33 34 42</sup> and/or post-activity questionnaires inquiring about learners' self-reported achievement of learning goals.<sup>24 32–35 37 38 42</sup> Five studies reported outcomes relating to educator<sup>26 34 40 45 46</sup> or patient<sup>34 42</sup> experience of the learning activities.

We use categories from the DELE model (figure 1) to provide an overview of concepts and terms described in literature in relation to workplace-based learning for HP.<sup>21</sup>

### Learning activities and outcomes

Learning activities were comprised of HP-related interactions or consultations with patients, in which learners engaged either with supervisors or independently. The (intended) learning outcomes varied. Some studies described specific knowledge or skills that learners were expected to acquire. Examples of knowledge include behaviour change theory or the relationship between

lifestyle factors and health outcomes.<sup>27 35 46</sup> Examples of skills included motivational interviewing or coaching.<sup>25 28 47</sup> Other studies reported (intended) outcomes concerning learners' attitudes towards HP practice and their own role therein, towards patients (such as elderly patients, patients with obesity) or towards concepts such as health literacy or social determinants of health.<sup>27 30 32 34 37 38 40 41 44 48 50 53</sup>

Studies can also be categorised by how they approached HP as a topic (see also table 2). Seventeen studies described learning activities focused on learning about one or more specific risk factors or lifestyle factors. Examples include smoking cessation,<sup>23 25 35</sup> addressing weight,<sup>30 44 46</sup> nutrition,<sup>27 29 34 37–39</sup> physical activity<sup>24 32 50</sup> or fall risk.<sup>51 52</sup> Fourteen studies described learning activities or practices with an open approach to HP, in which learners adapted to the patients' needs: these activities were often intended to acquire generic skills such as motivational interviewing or coaching.<sup>28 29 31 33 35 40 41 43 45 47–49 51 53</sup> In five studies, specific target populations were at the centre of learning activities (eg, patients with a chronic disease, patients who are rehabilitating at home or older adults).<sup>26 36 42 45 46</sup>

### Spatial and instrumental elements

Spatial and instrumental elements described in relation to workplace-based learning about HP include healthcare setting, nature of care and the availability of tools and resources. Most of the HP learning activities described in the included studies took place in healthcare

practices in the community: general practitioners' practices<sup>23 25 28 30 31 40 41 44–48 50</sup> or other community-based healthcare practices.<sup>24 26 27 32 34 35 40 41 46 48 49 51 53</sup> Examples of the latter include a community health hub with a focus on exercise prescription as a learning environment for physiotherapists<sup>24</sup> and a community-based paediatric obesity intervention as a learning environment for medical students.<sup>34</sup> Other studies describe HP learning activities in clinical environments, such as teaching hospitals, university medical centres, a university dental clinic<sup>35 38–41 43 45 46 48–50 53</sup> or in patients' homes.<sup>29 33 36 42 46 52</sup>

Overall, studies emphasise the importance of creating authentic learning environments, in which the nature of care provided aligns with HP practice, to provide learners with the opportunity to address 'real world problems'.<sup>24 28–30 32 33 35 38 48 49 52 53</sup> The location of learning activities as described above suggests that community-based healthcare practices and patients' homes may provide more opportunities for such authentic experiences compared with hospital environments. Several studies offered insight in why this may be the case. For instance, learners reported time constraints in hospital settings where patients had short stays and perceived that more time was available for HP practice in community settings (see also temporal elements). Additionally, hospitals were perceived as prioritising cure over HP, whereas learners found that the nature of care provided in community practices aligned better with HP.<sup>48 50 53</sup>

Studies describe different tools and resources that are provided to learners to support HP practice.<sup>23 25 26 30 32 34 36 38 40–44 46 52 53</sup> Examples include tools or models for behaviour change, specific screening tools supporting health counselling (fall risk, osteoporosis and dietary history) or resources identifying programmes for patient referrals.

### Epistemic elements

Epistemic elements include preparation for practice, experiential learning, connecting theory and practice and integration of HP learning activities in curricula and assessment. Many studies describe preparation activities for learners prior to, or embedded throughout, workplace-based learning activities, ranging from brief introductory lectures to extensive courses.<sup>23 27 30 31 33–35 37–44 46 47 53</sup> Preparation activities are used, for instance, to provide learners with knowledge or tools or to practice skills such as health coaching or motivational interviewing with peers or simulated patients.

Workplace-based learning activities are often characterised as experiential learning: learning by doing, integrated with or followed by (guided) reflection.<sup>24 30–32 35 38 40 41 43 46 51</sup> Studies describe using reflection conversations between learners, sometimes facilitated by teachers, or written reflection assignments/journals.<sup>28 30–35 40 41 43 47 49</sup> Different studies describe that within these reflections, specific attention is directed to the disconnect that learners perceive between what is taught in classroom settings and the reality of healthcare practice.<sup>24 28 31 34 35 38 42 47 48 52</sup>

Studies discussed whether and how HP learning activities were integrated within the curriculum and assessment structures. To help students understand that HP is a part of their future profession and motivate them to learn about it, HP should be included as a substantial and integral part of the core curriculum.<sup>32 35 39 48–50</sup> Studies often used students' self-assessment or reflective reports for assessment purposes.<sup>24 25 30 32 40–42 44 46</sup> Learning was negatively impacted when learners felt that what they learnt about HP did not align with what would be assessed in examinations.<sup>31 46</sup> Tensions arising around assessment of HP learning are described in different studies: Wylie *et al* describe the misfit 'between health promotion, with a complex evidence base and based on human experience, and the current positivist-oriented assessment culture',<sup>46</sup> and Friedland *et al* describe the difficulty of aligning evaluation tools (developed at the educational institution) with experiences gained in community placements.<sup>26</sup>

### Temporal elements

Temporal elements included timing of learning HP, duration of learning activities, work pressure and opportunity for interruptions. Learning activities were mostly situated during undergraduate education: in the clinical phase<sup>24–26 28 29 32 33 35 39–46 48 49 52 53</sup> or preclinical phase.<sup>23 24 31 32 34 36–38 46</sup> Four studies reported on learning activities for residents (medical speciality training)<sup>27 30 32 50</sup> and three studies on learning activities for healthcare professionals (continuing professional development).<sup>32 47 51</sup> Five studies described an extra-curricular learning activity, of which two were based in primary care practices, one in hospital context, one in patients' home context and one in a community-based context.<sup>23 25 33 34 38</sup>

Different studies suggest that certain HP competences (such as motivational interviewing or assessing fall risk in elderly) should be built from existing knowledge and skills and are therefore best situated in later stages of education.<sup>28 35 36 47</sup> Maini *et al*, on the other hand, provide examples of third year medical students with little clinical experience, who appreciate the opportunity to provide health coaching to patients and contribute meaningfully to patient care in an early phase of their training.<sup>31</sup> This is also discussed by Ozone *et al*, who highlight that in order to grasp the comprehensiveness of HP practice, early exposure to this topic is helpful in cultivating a sociological perspective alongside a 'medical' perspective.<sup>40</sup>

Duration of learning varied: from one or a few days,<sup>29 30 32 37</sup> to weeks or months,<sup>23–28 31 33–36 38–41 43–45</sup> to one or more years.<sup>38 42 54</sup> Various studies suggest including a longitudinal element, to enable learners to follow up with patients and to observe changes, or a lack thereof, in their patients' health.<sup>30 33 46–48</sup>

Learners report a lack of time and high workload as barriers for learning HP in the workplace.<sup>27 28 30 31 48 50 52 53</sup> For instance, learners feel discouraged from undertaking HP activities as they take up time, or create more work for staff, in healthcare environments stretched for time that

**Table 3** Designable elements and questions for practice

Spatial and instrumental elements	
Healthcare setting	How can the specific characteristics of this healthcare practice be used to provide authentic, real-world problems for learners?
Nature of care	How does the nature of care delivered in this healthcare practice align with HP?
Tools and resources	What tools and resources do learners need to provide HP in practice?
Epistemic elements	
Preparation for practice	What specific knowledge, attitude or skills do learners need to provide HP in practice?
Reflection on practice	How can reflection on HP practice be encouraged?
Integration in curricula	How is HP learning incorporated and conceptualised in the curriculum?
Integration in assessment	How is HP learning assessed in practice, and how does this assessment relate to existing assessment structures?
Temporal elements	
Timing of learning	What HP learning is situated in which stage of the learning continuum?
Duration of learning	Which time period is available for HP learning? If possible: is there a room to enable learners to follow up with patients?
Work pace	How does work pace influence learning HP in this practice?
Social elements	
Role models	Who are potential role models in this practice?
Interprofessional practice	What opportunities for learning about or through interprofessional collaboration exist in this practice?
Patients	What role can patients play in learning HP in this practice?
Peer learning	How can learners learn together, or learn from each other, about HP?

give little prioritisation to HP practice (also see spatial elements). Some studies offer a different perspective and highlight a value-added role for students, by giving them an independent task in HP within a healthcare practice in which there otherwise would be no time for it.<sup>23 31 36 52</sup> In relation to work pace, different studies specifically highlight the importance of interruptions, allowing time for reflection which is deemed an important element in learning HP (see also epistemic elements).<sup>28 31 35 49</sup>

### Social elements

Studies described different social elements, namely role models, exposure to interprofessional collaboration, the patients' role in learning and peer learning. Different

studies describe that workplace-based learning about HP is hampered by the absence of good role models in practice.<sup>31 44 48 50 53</sup> When practitioners have little time for or have little interest in HP, this discourages learners from undertaking HP activities themselves. Two studies described how they have addressed this issue: Leedham-Green *et al* organised a training day for general practitioner tutors in behaviour change techniques so they were better equipped to support students who were providing behaviour change counselling in their practice,<sup>44</sup> while Daya *et al* described the specific preparation of faculty to support students learning about patient advocacy during work rounds.<sup>43</sup> Interestingly, while some studies report on learning activities in which learners provide HP independently in an existing healthcare practice, none of these have examined whether or how the current practitioners in that practice could learn from learners.<sup>25 26 28 31 43 47</sup> Ozone *et al* do describe that faculty members deepened their understanding of social determinants of health through participation and interacting with students in the course programme.<sup>40</sup>

Different studies described learning activities situated in interprofessional teams, with supervision from professionals with different backgrounds or with groups of learners with different (future) professions.<sup>25 27 33 42 51</sup> Sometimes, the involvement of professionals with different relevant backgrounds was beneficial to learn specific HP skills, for instance, medical students learning about nutrition from dieticians or physiotherapists who accompany nurses on home visits to learn from them about assessment of needs of homebound elderly patients.<sup>27 42 51</sup> In other studies, the emphasis was on learning to collaborate across professional boundaries for HP practice.<sup>33 51</sup>

While multiple studies report that learners recognised the potential to collaborate with patients as partners in HP practice,<sup>28 47 49</sup> only one study reported an explicit role for patients in learning.<sup>32</sup> Different studies describe learning activities for pairs or groups of learners for the purpose of peer support or peer learning, though none of these further evaluate these concepts.<sup>26 28–30 32 33 35 45</sup>

### DISCUSSION

In this scoping review, we offer an overview of the existing research on workplace-based learning about HP in individual patient care and present relevant concepts and terms that are discussed in studies within this domain. We included 31 articles that described evaluations of workplace-based learning about HP, around a variety of HP topics, for different health professions. Table 3 provides an overview of elements we extracted from the articles, along with guiding questions for practitioners wishing to advance their HP learning practices. Below, we discuss our findings in relation to existing literature and practice, discuss strengths and limitations and highlight gaps for future research.

As established in literature on workplace-based learning, learning from authentic practices and role

models is crucial.<sup>55 56</sup> In the context of HP learning, we found that several included studies described a lack of time and role models for HP in the workplace-based learning environment, which mirrors the broader literature that HP is still finding its place in healthcare practice, and that the distribution of HP roles and responsibilities is still ongoing.<sup>57–59</sup> This finding underscores the need for innovative workplace-based learning approaches and support, especially in workplace-based learning environments where HP practices have not fully integrated.<sup>60</sup>

Another important element was how HP learning was incorporated into curricula, which impacted students' workplace-based learning about HP. When HP learning is ambiguously defined in curricula or assessments, it becomes vulnerable to being overshadowed by subjects that have clearer definitions or more rigorous evaluations, which is consistent with findings in other literature on HP learning.<sup>54 61 62</sup> It appears to be challenging, yet vital, to effectively integrate HP learning in already crowded health profession education curricula, with new themes continuously being added and old themes trying to hold position.<sup>63</sup> We observed a spectrum of learner assessment approaches that reinforce the existing literature, suggesting the need for novel assessment tools addressing the comprehensive and dynamic nature of HP learning.<sup>63 64</sup>

Remarkably, we mainly found studies focusing on education programmes and clerkships for health profession students. Only a few focused on continuous professional development or lifelong learning, which aligns with other literature on HP learning.<sup>7 8</sup> Developing specific continuous professional development initiatives for learning HP may accommodate further engagement of healthcare professionals who have already completed formal training. Furthermore, four studies described faculty learning about HP by being prepared to support students' workplace-based learning.<sup>40 41 43 44</sup> It was also notable that included studies did not frame current professionals and professionals in training as peer learners. Thus, the potential for incumbent professionals to learn from professionals in training seems underutilised.

### Strengths and limitations

A strength is that we tried to be as comprehensible as possible by collaborating with an experienced librarian and a professor in preventive care on the review protocol and search strategy. However, it is possible that relevant studies were not identified. We searched the most relevant databases in the field but could have missed citations because we did not search all electronic databases available and excluded non-English languages. We attempted to cover as much literature as possible in our search strategy by using broad terms to encompass the concept of 'HP in individual patient care'. For the concept of workplace-based learning, we only included articles that focused on physical interactions between professionals and patients. By this, we did not assess telehealth initiatives, which

have become prominent, especially since the COVID-19 pandemic.

The diversity in the studies resulted in a range of outcomes used to assess the 'success' of HP learning activities. This diversity prevented us from providing a conclusive assessment of the effectiveness of the included learning activities in our review. Nevertheless, we think our scoping review provides an informative overview of elements that can inspire and inform a wide range of healthcare training programmes and professionals. The DELE model makes insights from the included studies concrete and applicable to practice. The relatively small number of eligible articles we found highlights the need for further work in this area.

### Moving forward

A gap to be addressed by future research concerns design and evaluation of approaches to lifelong learning about HP for current healthcare professionals. We believe a promising direction would be to design workplace-based learning activities for students and professionals to learn collaboratively. We recommend adopting participatory research methods, as these allow for starting from practice and collaborating with practitioners and students. Learning experiences or activities that facilitate a discussion about the integration of HP practice within professionals' role are also worth exploring. In addition, we recommend the exploration of involving patients in shaping learning about HP. Literature increasingly explores the role of patients in learning, and HP can offer a relevant framework for this purpose.

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