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Health Promotion in the Age of Social Media: Evaluation of Word Press as a Platform for Developing Postgraduate Student Skills

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Authors' contributions

This work was carried out in collaboration between all authors. Author EJ coordinated the development of the study; conducted focus group and survey research; literature review and discussion development. Author AH led on the literature review and analysis of focus groups. Author KR led on focus group fieldwork, analysis of focus group data and discussion. Author MP advised on piloting, assignment guidelines and led on assignment analysis. Author TB led the technology enhanced learning element of the study and adapted the WordPress platform. Author NdeV developed the health promotion evidence and theory base for the course. Author MJ initiated and developed the framework for the study. All contributors wrote sections and reviewed the article. All authors read and approved the final manuscript.

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ABSTRACT

Aims: The present study reports on the evaluation of a postgraduate assignment in which students produced a health promotion website. The aim of the study was to examine the application of WordPress as a platform for developing contemporary skills in health promotion practice.

Study design: A mixed methods study including the use of focus groups, survey, document analysis and literature review.

Place and Duration of Study: A health promotion course as part of a UK-based MSc in Public Health/Environmental Health between September and December 2013.

Methodology: Following a pilot development stage, 27 students were supported to produce a WordPress health promotion assignment. These were content and thematically analysed. Students completed a baseline and follow-up questionnaire on digital and health

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promotion literacy, and self-efficacy. Approximately half the group took part in focus groups to examine students' perceptions of the assignment.

Results: Participants were able to apply the web-based platform to a wide range of health promotion contexts. The central messages were supported through the use of hierarchically organized web-pages; extensive visual, audio-visual and diagrammatic elements; and contextual fields of theory, research and practice. Participants were able to present frameworks for incorporating interactive and dialogical components, but these areas were challenging within the context of the assignment. Questionnaire outcomes suggested group level improvements in the measures. Focus group themes concerned the role of previous experience; motivation; perceived advantages; challenges; help-seeking strategies; perceived benefits; and proposed improvements.

Conclusion: Off-the-shelf blog-sites are a promising platform for developing skills in social media and health promotion. The study found good acceptability and feasibility from a student perspective. The assignment offered professional credibility in terms of the development of multi-media presentation, public and professional communication skills. Pedagogically this mode of assignment raises interesting challenges in the assessment of logical thought, critical reasoning and synthesis of argument.

Keywords: Social media; technology enhanced learning; health promotion; assessment; higher education.

1. INTRODUCTION

1.1 Overview

Web-based media have become well recognised as important channels for health promotion communication. This reflects a general shift towards the internet as a primary medium of communication as well as reflecting the changing character of social interactions in a less spatially bounded and more globalised context. Public Health education needs to reflect this changing environment so that new entrants to practice are well placed to make use of the opportunities for improving health through new media. However, it appears that mainstream postgraduate Public Health education continues to rely on traditional forms of assessment that do not develop web-based skills. Outside of specialised training course reports, there has been little research on the application of social and web-based media in mainstream MSc Public Health education settings. This paper reviews the use of such media and reports on the use of a web-based platform – WordPress – as the medium for a health promotion assignment on an MSc in Public Health programme in a UK university. We evaluated student experiences of undertaking this work, analysed their assignments and have identified a number of pedagogical issues that are of relevance to wider audiences.

1.2 The Use of Media and Social Media in Health Promotion

The dissemination of appropriate health messages is a key part of health promotion and the role of the media has been well recognised in this respect. The way in which the media defines and frames an issue has the potential to alter individual attitudes and lead to social action [1]. Traditional mass media – such as radio, television, newspapers, posters, leaflets, booklets and billboards [2] – are increasingly replaced or shaped by social media such as mobile and internet-based technologies. These create interactive platforms through which individuals and communities can co-create, share, discuss and modify user-generated

content [3]. These new media have the potential to transform how health promotion communications develop and are sustained – while at the same time pose challenges for professionals who seek to direct and influence public engagement with, often complex and contested, health-related issues. The use of the new media for health promotion has been driven by the belief that the character of media offers opportunities for changes in health behaviour. However, research has found mixed results and drawn attention to the need to improve the skills of practitioners in this field [4-6].

In this article, we use the term social media to refer to mobile and internet-based applications that allow user-generated content to be shared, modified and discussed. This includes text messaging, social networking sites, microblogs, content sharing sites and wikis. Kietzmann et al. [3] describe seven building blocks that help define social media and explain their functionalities. The first functional building block is identity; this represents the extent to which users are able to reveal their identities. Social media platforms may allow users to create profiles with such personal information, which raises the issue of privacy. The next functional block concerns the frequency, content and format of conversations that users are able to have in the chosen social media. For instance, Twitter uses short messages which act as real-time updates, while blogs accommodate lengthy conversations which can be easily traced back on the platform. Sharing is another defining characteristic of social media. By sharing personal objects, experiences and observations, users are able to connect and socialize with others of similar interests. For instance, YouTube is convenient for sharing videos and Flickr for pictures. Presence refers to whether users are able to see if others are available. Presence can indicate desire to interact and those with more social presence are more likely to influence conversations. Other functional blocks of social media include relationships, reputations and groups. These define how users relate to each other, whether the medium permits any hierarchy to emerge and the abilities of users to form groups. Understanding these characteristics can inform appropriate and effective use of social media.

The ability of social media to reach broad audiences has enabled health promotion professionals to realise their potential in empowering individuals to gain control over their health [7]. Social media are therefore becoming preferred methods of health promotion. Within health promotion, the settings approach and individual behaviour change models have been used widely. With the settings approach, the physical, organisational and social contexts in which people live are the objects of intervention [8]. Therefore, a setting is defined as a social context, which can be expressed by a formal organisation, a region, shared living conditions or common preferences [9]. With such a broad definition, the internet, especially social networking sites, adequately meets the characteristics of a setting [10]. Loss et al. [9] argue that as people spend more time and increasingly become dependent on the internet, online social interactions rather than geographical closeness will become more important in defining the setting.

Burke-Garcia and Scally [11] argue that 'digital media' - which incorporate aspects of social media - will become the main vehicle for research and advocacy; public health leaders should seek to understand them in order to reap maximum benefit. Social media, when used in health promotion, should not be seen as an easy solution to the complexities of behaviour change. Their greatest value is the potential to effectively engage audiences and enhance communications to promote programmes, products and services [7].

1.3 The application of Web-Based Technologies for Higher Education Student Assignments

Web-based technologies are now widely used as a basis for student assignments and the advent of social media technologies have made their application increasingly feasible without the need for specialist IT (Information Technology) support [12,13]. The advent of technologies that allow for more user-generated content appears to help translate a vision of a pedagogically sound learning activity into actual products; however, evidence from academic evaluations of these initiatives is not always forthcoming.

A number of studies have advocated the role of web-based forms of assessment for integrating the development of academic knowledge and the acquisition of transferable skills. Web-based assignments appear to be liked by students, providing them with important information-handling skills and the opportunity to experiment with content, format and structure, which may have wider value for independent learning and application in practice-based contexts [14-18]. The idea that assignment work can become available to the public domain is popular with students, because it allows them to showcase the effort that has gone into their work [19, 20].

Online forms of assignment offer potential advantages over traditional essays, reports, posters and written presentations, where they can, for example make better use of hyperlinks, images and other media [21]. The process of developing a web-based assignment may promote deeper consideration of the connections and integration of ideas and promote a concise style of written expression [19]. However, there are also a number of challenges: Technically, there may be challenges ensuring students can submit completely functional websites and that copyright permissions and restrictions have been addressed [19]; At the outset of the process, students may find the idea of this form of assessment stressful, especially where they perceive themselves to be unskilled in IT [19,15]; The format of web-based assignments might actually hinder formal academic essay writing skills [19]. This is particularly a concern for the health subject area given that the internet is an environment that has no standards for the presentation of evidence or argument [22-24]. Some research indicates that the format of the web-based interface is important for increasing the attention of the viewer [25]. However Bullard et al.. [20] found that a multitude of formats (fonts, textures, layouts, colour schemes, etc) can serve as a distraction and potentially undermine important elements of the task.

These studies have therefore emphasised that it is important to:

- Convince students that developing a web-based assignment is a relatively straightforward task that has many areas of similarity to other assignments.
- Provide group training and individual support.
- Have good access to facilities, ensure staff availability and allocate sufficient time relative to other assessment work. Getting started can take more planning, especially in terms of arranging information appropriately and in a logical sequence.
- Have a framework for assessing the quality and credibility of the information presented.
- Model the assignment through the use of examples and provide a framework that students can follow and adapt.
- Provide clear assessment criteria and clarity to dissuade students from spending excessive effort embellishing their web pages at the expense of content.

- Offer a structured approach that starts by emphasising the importance of academic conventions and structure, followed by careful consideration of the online mode of presentation; for example, in the form of more concise and accessible written sections and appropriate use of images, diagrams and other audio-visual resources. It is important that students avoid simply presenting an essay online.
- Conversely, it is also important to avoid excessive web-based audio-visual formatting to the exclusion of academic content.

There has been little research on the application of social media in mainstream postgraduate Public Health education settings. The present study reports on the evaluation of a postgraduate assignment in which students produced a health promotion website. The aim of the study was to examine the application of WordPress as a platform for developing contemporary skills relevant to health promotion practice. This paper reflects upon practical difficulties encountered during the intervention, solutions adopted and potential future challenges.

2. MATERIALS AND METHODS

2.1 The Web-based Health Promotion Assignment

WordPress was selected as the web platform for an assignment used to assess students' learning outcomes in health promotion as part of the MSc in Public Health at the University of the West of England, Bristol, UK; the assessment was undertaken by students in December 2013. WordPress is an open source content management system that was developed for inexperienced users to simplify website hosting, building and maintenance; essentially, no web programming knowledge is required. Individual pages can be created using the included online editor that functions similar to a word processor [26]. WordPress has been used for supporting student education in other studies [12,13,27,28] and, after an assessment of its functionality, was identified as a promising platform to pilot.

Eight student peer educators worked alongside academics to develop the WordPress assignment. These were students who had, in the previous academic year, produced an assignment for the same module in the form of a paper-based health promotion poster, using Microsoft PowerPoint. Following initial training from a specialist in Technology Enhanced Learning (TEL), the peer educators worked at converting their poster assignments into the WordPress format. The team collectively reviewed their WordPress assignments with the academic teaching team and developed standard guidance that took into account the main issues identified in their production.

The guidance advised that while students could select any topic relevant to health promotion, the final work should define a clear 'health promotion message', address a clear target audience and consider the geographical and demographic context for the message. For example, a web-site assignment might focus on the role of dietary behaviour change in the prevention of diabetes and target community health workers in a middle income country. Students were advised to plan how their website framework might use sections – such as web-pages and web-links – to substantiate or add context to their central message. While it was recognised that it was beyond the scope of the assignment to generate user-led content, students were instructed to create an appropriate framework for engagement, dialogue and interaction with their target audience. Finally, they were required to provide a 'backstage' reflective account on their website and on the potential usage of social media

techniques. Students were provided with model examples and a Word Press template, but were encouraged to innovate within the guidelines of the assignment. Technical and academic advice was provided during the module on setting up the website, use of audio-visual media, basic website design, and health promotion theory and research relevant to the field of social media.

2.2 Evaluation Study Design

The evaluation comprised a mixed methods approach, which included use of a baseline and follow-up student survey, student focus groups, textual analysis of the websites, and analysis of students' written reflections on the assignment. The study was a collaborative project involving two members of academic staff (lecturers who taught the module), a TEL specialist and four peer educators (MSc Public Health students).

Following the provision of written and verbal information on the study, all students were asked to provide written consent to take part in the evaluation. All students were given the opportunity to withdraw at any point with no implications for their academic studies. All questionnaire and interview data were anonymised using unique ID codes. This assured confidentiality for respondents for any public dissemination of the data, but also provided a clear link between data sources.

2.3 Assignment Analysis and Student Survey

Descriptive characteristics, such as WordPress-related features and health promotion topics, were categorised and recorded for all assignments. Three members of the research team then analysed the academic logic, organisation and communication techniques used. The student reflection sections were analysed thematically. These were then reviewed by the wider team alongside the other data collected.

The baseline questionnaire was administered before commencement of the assignment and the follow-up questionnaire was distributed following the completion of the assignment. Both baseline and follow-up questionnaires were divided into three sections. The first section was constructed to gather information on the students' digital literacy using a scale developed by Hargittai [29]. The scale comprised of seventeen items, on a five-point scale and yielded a composite score ranging from 17 to 85. The second section of the questionnaire addressed health promotion literacy and the question scale was developed by two academics on the MSc Public Health programme. The scale comprised of fifteen items, on a five-point scale and yielded a composite score ranging from 15 to 75. The third section of the questionnaire addressed students' perceived self-efficacy based upon a general self-efficacy scale [30]. This scale comprised ten items, on a four-point scale and yielded a composite score ranging from 10 to 40. Analysis of the questionnaire data was conducted using MS Excel.

2.4 Focus Groups

Twelve out of the cohort of 27 students took part in focus groups that took place directly after the presentation of their assignment. Interviewers briefed participants and audio recorded the group discussion. The interviews were semi-structured with open-ended questions. Issues explored included students previous experiences with social media, challenges and support given while developing assignment and its future usefulness. Each interviewer

transcribed their focus group recording and one member of the research team then analysed the data using Nvivo 10, producing the main themes.

3. RESULTS

3.1 Assignment and Student Survey Analysis

Twenty-seven students used the WordPress web-platform for their assignment. A variety of Public Health topics were chosen by students of which obesity, smoking, child health and sexual health were the most popular (see Figure. 1).

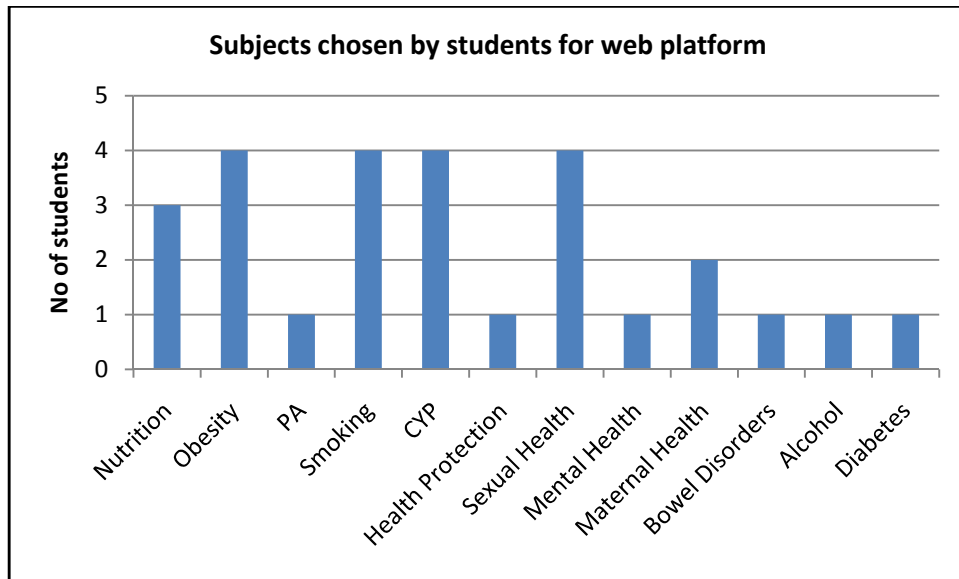


Figure 1. Public Health topics selected by students for their assessment

The number of webpages uploaded by students varied between three and nine pages. 85% of students uploaded between four and seven pages to their website. Those assignments that adhered closely to the assessment guidance made clear use of the home page to summarise the key health promotion messages. Linked webpages then provided research, practice, theoretical and policy context to the key messages. Assignments with a more compelling logic focused on the most salient evidence-based linkages to the key messages and avoided unnecessary extraneous material.

The vast majority of students incorporated health promotion models and frameworks into their websites. These were presented in a graphical format – as opposed to a simple linear text format – and used diagrams and images to communicate key features. The use of illustrations, including pictures, charts, and graphs, were popular, with 48% (n=13) including between four and six images on their site. Videos were also commonly used, with 48% of students embedding one or more videos onto their website. The websites used add-ons such as widgets, RSS feeds, embedded YouTube channels, Twitter feeds and slideshows. Assignments with a strong logical framework were able to show how the layered and multiple formats of the material communicated an integrated package of information.

Review of the ‘student reflections’ documented on the websites found that very few students had previous experience of working with a web-based platform such as WordPress. A large number of students reported that they welcomed the challenge and were keen to develop their IT skills. It was also reported that the thought of using Word Press was initially daunting; however as students became familiar with the platform, they found it became easier to operate. Students frequently reported that they would have preferred additional WordPress training, though several had identified internet forums, videos and online tutorials to resolve issues and technical problems.

It was commonly reported that the platform provided an opportunity to design a project that could be used beyond the scope of the module. For example, students liked the idea of having a ‘live’ resource where the website could be updated or further information added when required. Some students were also pleased to be able to create a forum and share information with Public Health practitioners, especially those already working in the Public Health field.

Analysis of the student responses to the baseline and follow-up questionnaires showed a group level improvement in the scores for ‘digital literacy’, ‘health promotion literacy’ and general self-efficacy’ (see Table 1). Notably, the change in digital literacy was modest.

Table 1. Questionnaire Data Analysis

	AVERAGE		DIFFERENCE Percentage difference	STANDARD DEVIATION	
	Baseline	Follow-up		Baseline	Follow-up
Digital literacy scale	43.52	46.19	6.1%	12.73	12.18
Health promotion literacy scale	41.00	53.67	30.9%	11.97	8.69
General self-efficacy test	29.90	32.62	9.0%	3.39	3.90

3.2 Focus Group Analysis

Seven themes emerged from the qualitative analysis of the focus group data.

3.2.1 Knowledge and previous experiences of social media

When asked about their experiences with using social media, participants reported having used a range of social media channels such as Wikis, social networking sites and texting applications. Participants often only had a general understanding of social media, which encompassed the mainstream internet (Web 1.0) and communications offered through general digital media.

- EJ5: When I did my degree that I just finished, we were asked to create a Wiki - We were in groups like this as well. We created a Wiki online and then I did a PowerPoint presentation.
- AH1: I think I have some experience of using WordPress and blogs. During my undergraduate, we made PowerPoint presentations and posters.
- 1KR3: I run a Facebook page, but I didn't find those skills ... very transferable [to academic practice]!

Participants reported using social media mostly to socialise rather than for work or studies. Those using social media saw the potential for linking these media to academic research and theory but their initial perceptions tended not to be related to professional or academic studies.

3.2.2 Motivation

The main reasons given for being attracted to the WordPress assignment were to learn something new, do something different and take on a challenge. The WordPress site was also seen to be less restrictive compared to conventional formats such as essays, because it allowed users to create pages, link and incorporate additional media. Others thought that an online health promotion tool would be more effective, convenient and relevant to their selected audiences.

EJ1: I thought, let me just do something different, for that was ... and it was good. You can express ... you have more words and you can put videos in to express yourself more, compared to [a standard text assignment].

1KR5: I thought a website would probably be a bit more relevant as well, even though it felt like a difficult thing. I thought it would actually be more useful to learn how to do that.

MJ3: I thought it would be relevant and appealing. Also, it was something new to me. I was looking forward to this assignment even though it was a new activity. I'm not a very tech-savvy person. It was interesting, it felt useful. If I had time, I would like to have made it more interactive.

Participants were anxious about the technological, creative and design skills involved in using WordPress. However, feeling confident that the use of social media was relevant to contemporary health promotion encouraged some to proceed.

3.2.3 Perceived advantages of the Word Press assignment

Using WordPress, students found they could more easily select their own topic and an appropriate model to apply it. It was suggested that WordPress provided more scope for expression. Also, it could be updated, modified and distributed easily through online sharing. Students reported that they could create layers of content in different forms and formats. This enabled them to articulate their arguments and points appropriate to the specific purpose of each section of the website.

MJ3: It was an advantage because using WordPress helps us have the flexibility to have different pages and links. So I felt that there was a better opportunity to communicate.

EJ3: It's easy to express yourself. With a paper based poster, I don't think you can write a lot.

AH1: One big advantage about WordPress is that it's online: it gives you the feeling that anyone in the world can see it. You can share it instantly. Once you have done something, you can share it with your friends. It is a resource that can last for years.

3.2.4 Challenges of developing assignment

A central challenge faced by participants focused on the technical aspects of creating the WordPress site while at the same time applying principles of health promotion. Technical issues included adding information to the site in a logical and appropriate sequence, with appropriate attention to depth and scale. Two students reported that the WordPress site was slow and in each case this was likely due to hardware problems or poor internet connections.

AH1: Most had issues with dealing with the menu, the pages, adding images, header images, or did not know the technicalities and dimensions; as not everyone is used to IT, the dashboard ...

EJ3: The website is slow. When you click on it, it takes too long to upload; whatever you're doing, so it's a bit slow. I don't know if it's the internet or whatever. That's the challenge I had, and then designing - web design is what I'm really having a hard time with ...

Other participants felt they did not have enough time to seek assistance and develop the assignment. This was mainly reported by those living far from campus who were less able to benefit from student support services.

1KR5: Doing this part-time and doing the day job, it really does come down to how much time I have actually got to be fiddling about trying to add a bit of animation or a bit of this or a bit of that ...

3.2.5 Help-seeking and student support

Participants were supported to complete the assignments through two timetabled WordPress training workshops, during weekly student support meetings and via email correspondence with module lecturers. Online guidelines for the assignment were provided, but participants had different experiences using them. Some felt that it was hard to interpret standard academic criteria in the context of the assignment given the close boundary between technical and academic competencies. Participants looked at sample assignments provided but some claimed that the exemplars made it difficult to come up with original ideas.

2KR1: I used the example websites quite a lot because I didn't really know what I was meant to be doing! I did know, but I didn't really know how to present it on a website. So I used the [model example provided] quite a lot but, at the same time, I didn't want to copy it. I was trying to be original but it was really hard.

Students also used social networking sites to seek and give assistance to each other through in-boxing and by posting on the student Facebook page. Some used their support networks to meet face-to-face and called each other for assistance.

EJ4: The technicalities, how to navigate around. But the good thing was that we had some guidelines and also previous examples, which were like guiding principles, and some of our mates, too, who were quite good with the technicalities, were also supportive.

3.2.6 Perceived Benefits of the Assignment

Opinions about future usefulness of the skills acquired by undertaking the assignment varied, but were generally very positive. Participants felt that learning to use social media could improve their communication skills and help them adapt to changes in how populations make use of digital technologies.

- MJ1: This is the core of public health. Health promotion is the core of public health – so the communication skills I gained here were really useful.
- EJ3: Yeah! And then, health promotion is all about ... public health is more about speaking and ... so, social media is a necessity.
- 1KR4: I think now, looking into the future, unless we kind of start to look at how we present public health messages ... Because, in ten years' time, the younger generation are not going to be engaging as much with leaflets and posters.

Some participants thought the skills gained could be helpful in their careers:

- MJ1: I thought it would be helpful as part of my future career, hopefully working with an NGO in Africa.

This also included the opportunity to develop a personal profile and online portfolio of health promotion expertise – a 'web presence' – through blogging and similar online activities. Others, especially those who did not envisage having a strong public communications focus in their career, did not think they would need social media skills.

- 2KR3: From my [professional practice] perspective I think that if you were to do something like this, you would have specific people in for you to do it. Having spoken to [practitioners] who are in the job, they have said that they would never ever use this in the job, so it's pretty irrelevant unless you were going to be a consultant or something like that.

3.2.7 Proposed improvements

To improve the assignment in the future, participants requested that there be more extensive technical skills training, peer education input and lectures on how to adapt mainstream health promotion techniques to social media.

- AH1: My suggestion is to increase the number of workshops for WordPress to at least three, one for introduction and setting up the website and then a follow-up so that people can ask [for guidance], X just gave out instructions and everyone was struggling. There should be three sessions, the last just before the assessment, so people with problems can go there to ask, instead of calling each other.
- 1KR4: With the WordPress workshop, half an hour was just not enough. It warrants, I think, at least half a day, but then having a contact to email queries to. Any IT service offers someone at the other end of the phone that you can ring and ask for help.

4. DISCUSSION

Use of social media is increasing as a tool for health promotion activities to improve health, and researchers have suggested that Public Health leaders should further explore its

potential for research and advocacy [11]. This study has shown that whilst some postgraduate students regularly use social media for informal day-to-day communication and sometimes for work, others have little experience of using such methods in either context. The starting point, in terms of knowledge, skills and experience of each student participant, varied a great deal and, for those who were unused to these forms of technology and communication, the assignment was initially daunting. Some students felt that learning new skills, combined with researching an academic topic, and balancing these with work commitments, was excessive. This concurs with previous studies that have demonstrated the stress students can experience completing similar social media or IT projects, particularly those who possess few initial IT skills [19,15].

Despite some trepidation amongst the less experienced students, many remained motivated to use WordPress to complete the assignment. Reasons for doing so included the opportunity to learn new skills, relevance to current practice and the chance to try out new ways of working. Some students used the assignment as an opportunity to design a project that could be used beyond the scope of the module, which is a reported benefit from other studies [19,20]. These participants included overseas students who hoped to use their new websites to share information with colleagues in their home countries; others perceived benefits of a web-based resource which could be updated and used over time. This type of assignment may help to provide transferable skills among future students, since studies have demonstrated that opportunities to experiment with web-based assignments encourage independent learning [14-18]. However, such transferable skills were not always perceived to be useful by students who were working in an area where they had little or no opportunity to put them into practice due to their job role or career.

A reported benefit of using WordPress as a platform for the assignment was the flexibility afforded with this medium for communicating ideas; for example, using different media and links to other sites to express a message. France and Ribchester [19] have suggested that website development may improve written expression and fluency through the need to convey deep understanding and critical analysis in a concise and accessible style. This ability to synthesise material may, however, be limited if individuals struggle with technical difficulties associated with preparing layout and presentation. Technical difficulties with regard to format and presentation may also compromise efforts to convey clear understanding via a web based assignment.

The experiences of students who carried out this assignment revealed a number of issues that require further consideration in the future planning of social media based assessments. Some students stated that they found the guidelines provided confusing such that they were unsure of what was expected of them. On the whole, these amounted to technical difficulties and lack of time to learn basic skills required to complete the assignment competently and with confidence. As some part-time students travelled long distances to the university, on day release from work, finding time to access additional support was challenging. For others, advice and help on technical issues was sought from peers or colleagues who had more experience and technical ability. These examples suggest that very clear guidelines are required when preparing students for social media based assignments, with bespoke technical support as and when students require it. A further point for consideration is on guidance for students on how to best present academic arguments and evidence using a web-based format, to ensure parity with essay writing and other modes of academic assessment [19,22,23,24].

The majority of students felt that the assignment was a useful way to learn or improve social media skills for future career development. A further benefit was the production of a resource which could be used outside of the classroom for work or other purposes. This study showed a need for clear guidelines to ensure health messages are conveyed in an appropriate evidence-based way and that academic content is not lost. With students having a very wide range of skills within the use of social media, more structured and ongoing technical support is needed.

There are a number of limitations to this study. Firstly, the assignment task itself did not give students the opportunity to test the more interactive and emergent components of their website. It would have been useful to have understood how target audiences engage with the material developed. However, this would have added a layer of complexity to the assignment that was not felt to significantly enhance the learning that could arise from the exercise. Secondly, other stakeholders – such as lay and external academic reviewers – could have been involved in the evaluation to provide an alternative perspective on the value and utility of the assignment. Thirdly, we could have formally compared the assignment to an alternative format. This would have raised methodological problems given nuances of the WordPress based assignment and we concluded that wider practice and research evidence on other assignment formats provided a sufficient context for the study.

5. CONCLUSION

WordPress provides a pragmatic and simple platform for use in a web-based health promotion assignment on academic teaching programmes. Although few students had previous experience of WordPress, all managed the basic technical aspects and a majority used enhanced features. Although students felt that further guidance and support whilst learning to use WordPress would have been useful, they reported enjoying the challenge of a new medium and often sought to apply their skills to professional settings.

Such assignments are an interesting and worthwhile way of diversifying assessment from the perspective of students participating in the exercise. The ability to express 'individuality' and 'character' is important and was a valued element of the exercise. Thus, there is a need to achieve a balance between providing clear guidelines on good practice in website design and development, whilst not being too prescriptive and possibly stifling the opportunity to express individuality.

An analysis of the performance of the students suggests that generic assignment criteria can be applied to web-based assignments. However, web-based assignments also differ in some respects to conventional essays. For example, the logic and organisation of critical reasoning and the connectedness of the central arguments to other online materials raise interesting questions for assessment. The criteria for assessing the quality of the health information in such contexts also requires consideration. Formerly, there have been initiatives in this respect, such as the DISCERN questionnaire developed by Charnock and Shepherd [31]. Future work might build on this to help define both good professional practices and their pedagogical underpinnings.

It is important to explore characteristics of the social media technologies, including the extent to which audiences should be guided through the health promotion material by the use of linear or non-linear page structures, and how links to external sites can be used in a meaningful manner

We conclude that although this might raise some challenges in the higher education context, assignments using web-based media offer a promising platform for developing skills in the social media and health promotion.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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