The delivery of health improvement information during radiotherapy treatment : a survey of UK therapy radiographers

PATTINSON, Laura and JESSOP, Anne

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The delivery of health improvement information during radiotherapy treatment: A survey of UK therapy radiographers

L.Pattinson[1] MSc, A.Jessop[1] MSc
Sheffield Hallam University[1]

Corresponding Author: Laura Pattinson, L.Pattinson@shu.ac.uk 01142255768, F420 Robert Winston Building, Collegiate Crescent, Sheffield Hallam University, Sheffield, S102BP

Conflict of Interest

No conflicts of interest are identified in this study.

Abstract

Introduction: The burden of lifestyle associated disease is increasing with a preventative approach to health becoming more of a focus. Within the oncology setting the importance of supporting patients with positive lifestyle changes post treatment is included within the recently developed recovery package and the contribution of therapeutic radiographers will be significant in the implementation of this.

Method: A 23 question survey tool was distributed via the online platform survey monkey. The questionnaire was promoted online through the Society and College of Radiographers (SCoR). All members of the SCoR had access to the questionnaire to allow for assessment of health improvement provision nationally. Quantitative and qualitative data was acquired and analysed using the statistical package for the social sciences (SPSS), descriptive statistics and thematic analysis.

Results: Therapy radiographers recognise importance of health promotion. Highest levels of provision were observed with smoking cessation and lowest levels of provision observed on the topic of exercise. Key barriers identified were staff responsibility and lack of knowledge and training of therapy radiographers.

Discussion: Health improvement is part of the role of the therapy radiographer and is delivered within UK radiotherapy departments; however there is scope to increase delivery with the identification and overcoming of barriers to provision.

Key Words

Public Health Health Improvement Radiotherapy Therapy Radiographer Lifestyle

Introduction

The burden of lifestyle associated disease can be demonstrated through the financial impact on the National Health Service (NHS). The cost of physical inactivity on the NHS is reported to be £1.06 billion, based on five medical conditions directly associated with inactivity[1]. A range of strategies to promote health and wellbeing are utilised throughout the health sector and making every contact count (MECC) is one recommended method[2]. The wide ranging professions that constitute the Allied Health Professionals (AHP) workforce are recognised by Public Health England (PHE) as valued members of the wider public health community[3]. In order to MECC it is suggested that health professionals should ensure appropriate use of their time and recognise that the delivery of health promotion and improvement information is part of their job[2].

In the field of radiography the professional body; the Society and College of Radiographers (SCoR) have published guidelines on health improvement for the radiography workforce[4]. The guidance outlines that both diagnostic and therapeutic radiographers have a role in the delivery of health improvement. Within the oncology setting supporting patients with positive lifestyle changes post treatment is included within the recently developed recovery package[5] and the contribution of therapeutic radiographers will be significant in the implementation of this. Furthermore the publication of the Achieving World Class Cancer Outcomes paper[6] further supports the importance of secondary prevention in the oncology setting and the need to support patients with self-management. Reported benefits to tolerance of treatment[7] and treatment outcomes[8] as a result of lifestyle changes during radiotherapy treatment provides further rationale.

A recent publication assessing engagement of AHP's with healthy conversations[9] highlighted that there is willingness from AHP's to have healthy conversations although challenges were identified. In order to develop and overcome challenges the Allied Health Professionals Federation and PHE have devised a strategy to develop AHP's in public health for 2015-2018[10].

The aims of this study were to;

- Establish if therapeutic radiographers provide health improvement information to patients undergoing radiotherapy treatment
- Establish if therapy radiographers feel that health improvement is an important topic in the workplace
- Establish if promoting healthy living and lifestyle is important to therapy radiographers
- Critically evaluate reasons for therapy radiographers providing/not providing health improvement information to patients.

Literature Review

The initial scoping of literature surrounding the role of the UK therapeutic radiographer in the delivery of health promotion sourced a very limited amount of literature and therefore the search was broadened to include all Allied Health Professions.

Reynolds[11] discusses the role of occupational therapists in health promotion. Whilst not a primary study the paper summarises key skills and strategies from previous research that are deemed effective in assisting patients to adopt a healthy lifestyle. The delivery of health improvement could be seen as education for patients and therefore methods of educational delivery should be considered. It is possible that some patients could benefit from lecture style delivery, or prefer a one to one scenario or written or electronic information to read/watch in their own time. Literature reported in this study demonstrates that patients are respectful of advice from health professionals regarding lifestyle changes [12]. It is recognised that health professionals need to reflect upon their own attitudes and barriers to exercise and avoid making any assumptions about lifestyle. The paper fails to provide any substantiated evidence surrounding the role of the occupational therapist in health promotion or barriers or facilitation to delivery, however the background information provided does however support the need for health professionals to engage with health promotion activities in their practice.

The role of the physiotherapist in health promotion activity is focused on exercise and physical activity. This is to be expected when considering the traditional role of the physiotherapist. A recent survey[13] of 220 physiotherapists highlights current practice of health promotion in relation to four key areas of lifestyle; smoking, exercise, diet and alcohol use. Physical activity was the risk factor assessed most often during patient consultations, occurring in 78% of follow up appointments. Dietary status was assessed in 55% of appointments and although smoking and alcohol status were deemed important topics, only on rare occasions were such topics raised during consultation. Rationale for choice of risk factor assessment is attributed to training issues, lack of time, uncertainty of about what services to provide, lack of referrals to wider services and lack of interest from patients. Although 92% of respondents in this study were interested in assessing risk factors they felt limited by lack of knowledge. Only 7% of respondents report to have received training regarding smoking cessation in the previous 12 months and 3% on alcohol misuse. One study assesses health promotion content within the curriculum in a sample of 258 accredited academic physiotherapy courses across 6 countries[14]. The online questionnaire highlights the training topics in key risk areas of health promotion such as smoking cessation, nutrition, weight control and stress. Such topics areas were covered in curriculum by more than 80% of institutions that responded. Alcohol misuse was covered less often with only 65.5% of institutions including this as course content, providing some potential rationale for reduced provision of alcohol misuse advice amongst physiotherapists as previously discussed.

A study[15] conducted in dieticians measures delivery of physical activity promotion. Findings highlight that 93% of dieticians promote physical activity on a regular basis, with 92% of respondents recognising that this is part of their job role. The study does not expand to consider the wider scope of practice for dieticians in relation to health promotion or barriers to provision but supports the concept that the AHPs do recognise that they have a role. The paper also provides similar findings to the physiotherapy questionnaire with regards to training. Less than 25% of respondents report to have received training with a 5 year period.

Only one relevant study assessed radiographers and health promotion[16]. The study assessed the potential role of the Breast Screening setting for the delivery of health promotion, focused on exercise and diet. The sample of 431 women concluded that the majority of patients would be interested in receiving information on the topic of diet and exercise and this would result in a positive or neutral impact on future screening appointments. The study assessed patient

perspectives in contrast to staff however provides an insight into the viewpoint of patients on the delivery of health promotion.

With a gap in current evidence surrounding the role of therapy radiographers in the delivery of health promotion, the current status of health Improvement provision within radiotherapy practice is discussed in this paper.

Method

A questionnaire was the method of data collection which enabled a national view of the profession. The questionnaire was accessible using the online platform Survey Monkey. The development of the question survey tool followed a scoping literature review. No recognised questionnaire instrument was available for use (at the time of the study the Royal Society of Public Health (RSPH) questionnaire was not available) therefore questionnaire design was developed using themes from current literature and from priority 1 of the public health priorities for 2013-2014[17] ; Helping people to live longer and more healthy lives by reducing preventable deaths and the burden of ill health associated with smoking, high blood pressure, obesity, poor diet, poor mental health, insufficient exercise, and alcohol. The questionnaire design included 23 closed questions with the option for respondents to select other as an answer for some questions with opportunity to provide a written answer.

Piloting

A pilot questionnaire was circulated to a group of therapeutic radiographers working in the academic sector to assess the relevance of the questions, ease of completion and any potential for bias. A lay person was also invited to provide feedback on the questionnaire to assess the language and structure, as a result of the feedback additional instructions were added to some questions and some were reworded for clarity.

Sample and informed consent

All clinical therapy radiographers across the UK that are members of the SCoR were invited to complete the questionnaire. The SCoR promoted the questionnaire using the homepage and news section of their website and via social media. An accompanying letter was attached to include information about the evaluation, an explanation regarding anonymity of the evaluation and contact details should any respondents have questions. The accompanying letter outlined that the completion of the questionnaire was not compulsory and if they choose not to consent to simply not respond. There was no requirement for the respondent to add any personal data to the questionnaire and all questionnaires were completed and stored anonymously with the project leads password protected Survey Monkey account. All data extracted from the questionnaire was stored on an encrypted password protected memory device. The evaluation did not obtain any personal data from respondents and therefore the issue of confidentiality and anonymity of staff details was not a risk. The Caldicott Standards[18] identify that personally identifiable data should only be obtained when necessary, for the purpose of this evaluation this was not be necessary.

The evaluation does not impact on patients or obtain patient data and therefore research approval from each NHS trust was not required, ethics approval was granted from the Faculty of Health and Wellbeing at Sheffield Hallam University.

Data Analysis

The questionnaire resulted in the collection of mostly quantitative data. The use of a statistical analysis program was used to organise data collected and to facilitate analysis of results. The use of thematic analysis enabled investigation of qualitative data obtained in response to questions where respondents provided a written answer. Initial processing involved the breaking down of individual comments and the grouping of data into general themes. Initially coding occurred for each public health message (diet, exercise, smoking and alcohol) and following this comments received were individually coded and grouped into very broad themes. The revisiting of themes prompted the development of subthemes for each public health message. The combining of the subthemes from four key topic areas provided the overall themes at the final stage of analysis.

Results

A total of 108 responses were recorded. Response sets in which the participant skipped more than 3 questions were disregarded, this was recorded in 6 cases and resulting in 102 complete data sets.

Opening questions to the survey were to determine agenda for change banding (national pay system applied to majority of staff in the health service, consisting of 9 pay bands each containing a range of pay points. Band levels increase in number to correlate with increased starting salary. Jobs are matched to national profiles to determine the appropriate pay band[19]) and clinical experience. Responses were received across all agenda for change bandings and most responses were received by Band 6 therapy radiographers. Participants range in clinical experience from 0-2 to more than 15 years.

Participants were asked; if health improvement can improve the holistic wellbeing of a patient, if health improvement is an important topic in their department and if delivery of health improvement information is part of their role as a therapy radiographer

- A total of 95 participants strongly agree or agree with the statement that health improvement can improve the holistic well-being of a patient.
- Health improvement is an important topic in radiotherapy departments according to 85 participants.
- The delivery of health improvement is part of my role as a therapy radiographer was answered as strongly agree or agree by 85 participants.

The following series of questions are grouped by smoking, alcohol, diet and exercise. The series of questions are the same for each topic area.

Smoking

In response to; **how often do you provide health improvement information about smoking** the answer selected most often was **occasionally**. More respondents selected the **rarely or never** option in comparison to **frequently or very frequently**.

In response to **rationale for the delivery of this information** 28 participants selected that it **is important to advise patients on smoking cessation** and **that time is allocated for discussion.** Additional comments were provided by 22 respondents with regards to provision of smoking cessation, key themes emerging include; staff responsibility, knowledge of smoking cessation and concerns surrounding patient views.

Figure 1: Smoking Cessation Provision

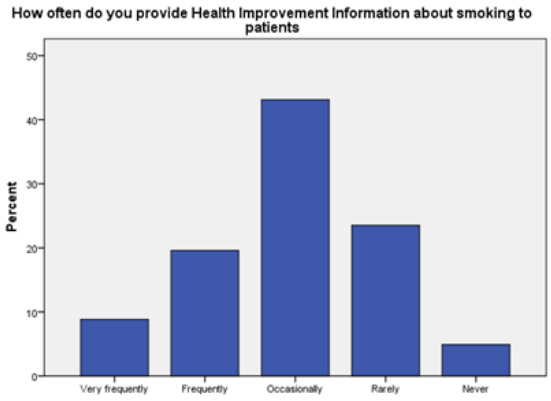
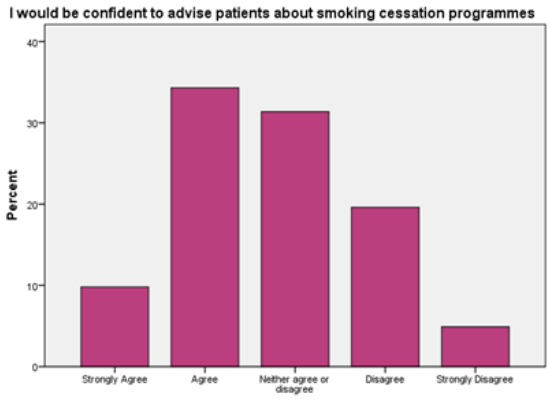


Figure 2: Smoking Cessation Confidence



The most selected answer to **I would be confident to deliver information about smoking cessation** was **agree**. Radiographers were asked for reasons for their level of confidence, **an awareness of smoking cessation programmes and information within their trust** was the most selected answer. In contrast several radiographers selected the answer **I am unaware of the information I should provide to patients about smoking cessation**.

Alcohol

In response to **how often do you provide health improvement information about alcohol to patients, occasionally** was selected by 49 participants. For remaining answers more respondents selected the **rarely** or **never** option in comparison to **frequently** or **very frequently**. Selected answers for rationale to the above question include that **it is important to advise patients on the topic of alcohol cessation**. **Not having time to deliver information and radiotherapy is not a good time to deliver alcohol cessation advice** were also answers selected in response to this question. Participants added 30 additional comments for this section. Key themes emerging include uncertainty surrounding job responsibility, confidence in delivery of alcohol cessation, training in how to deliver alcohol cessation, concerns surrounding patient views, staff personal views and patient related medical reasons.

Figure 3: Alcohol Cessation Provision

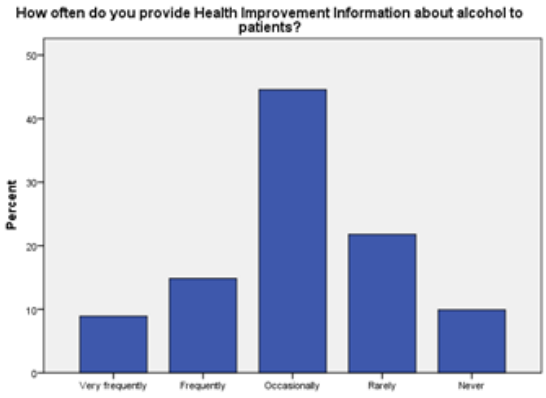
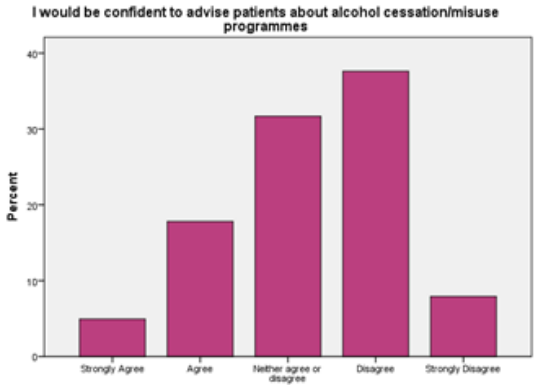


Figure 4: Alcohol Cessation Confidence



The most commonly selected answer in response to **I would be confident to advise patients about alcohol cessation/misuse programmes** was **disagree** with 41 participants selecting this answer. A total of 25 participants **agree or strongly agree**. The most selected answer to reasons for confidence of delivery was **I am unaware of the information that I should provide.**

Healthy Eating

A total of 102 responses were received for **how often do you provide information about healthy eating to patients**. **Frequently, occasionally and rarely** were all selected in relatively even quantities with 25, 27 and 26 responses. Themes emerging from additional comments received in response to this section include; uncertainty surrounding job responsibility, concerns surrounding patient views and needs, radiographer knowledge and training.

Figure 5: Dietary Advice Provision

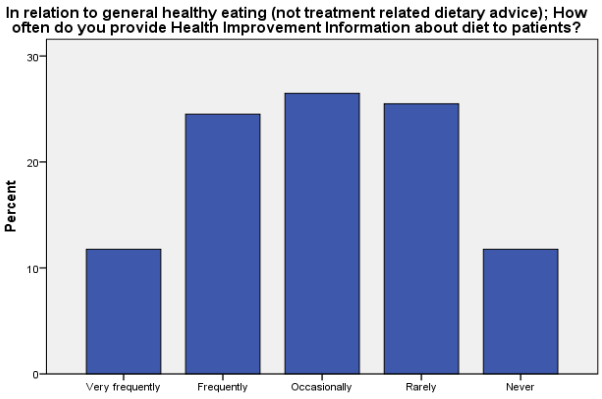
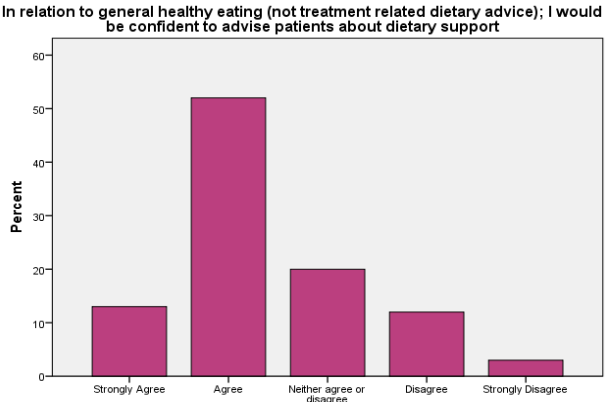


Figure 6: Dietary Advice Confidence



A total of 67 respondents agree that they are c**onfident to advise patients about healthy eating**, rationale for this is related to having **knowledge of healthy eating information**, representing the most commonly selected answer. **Limited knowledge of healthy eating and where to access support** was the response of 29 participants.

Exercise

The most commonly selected answer in response to **how often therapy radiographers provide information about exercise** was **occasionally**, 35 respondents selected this answer. For remaining answers more respondents selected the **rarely or never** option in comparison to **frequently or very frequently**. A total of 45 participants selected that exercise is an important topic to discuss with patients. Time is highlighted as a limitation in 31 responses, however 24 responses suggest that **time is allocated for delivery of this information**. Key themes emerging from additional comments include; uncertainty surrounding job responsibility, lack of training, staff personal views and staff confidence in delivery of these messages.

Figure 7: Exercise Advice Provision

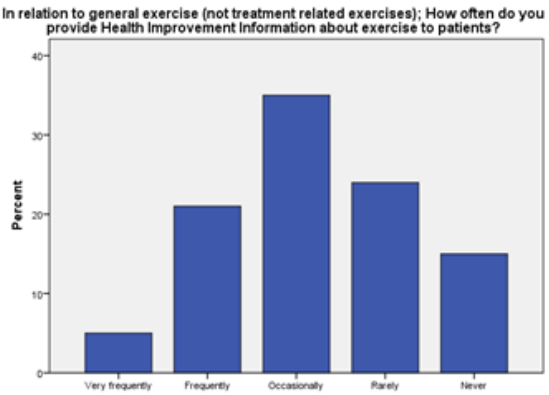
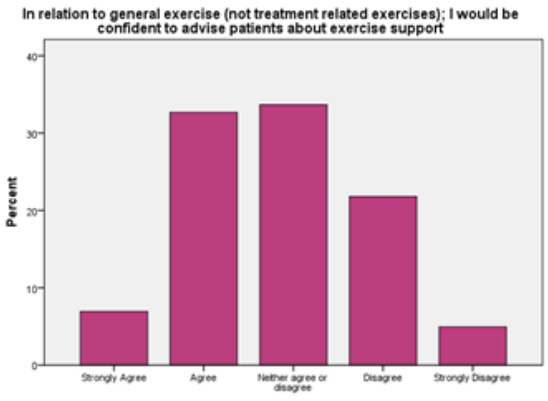


Figure 8: Exercise Advice Confidence



The most commonly selected answer to I **would be confident to advise patients about exercise support** was **neither agree nor disagree.** A total of 22 respondents **disagree** that they are confident to deliver such information. **Limited knowledge of information on this topic** accounts for most responses as the reason behind the radiographer answer to this question.

Discussion

Therapy radiographers recognise the importance of health promotion and the role health improvement has on the overall wellbeing of patients. Health improvement is seen as an important topic within department and many participants agree that the delivery of health promotion is part of their job role as a therapeutic radiographer. However responses to questions focused on specific health improvement messages highlight that not all therapy radiographers or departments recognise health improvement as an important topic or recognise this as part of their job role. The findings from the open questions are similar to the findings for AHP's collectively through the RSPH Healthy Conversations[9] questionnaire in which 87.6% of participants agree that their job role should involve prevention. With the exception of one participant, radiographers who selected that the delivery of health improvement is not part of their job role also selected that health improvement information is not an important topic in the radiotherapy department. Participants were not asked to identify the department in which they are employed and therefore the selection of such answers could be as a result of departmental culture and lack of discussion on the subject within individual departments.

The key public health message in which radiographers demonstrate highest levels of provision (provision classified by the selection of very frequently, frequently or occasionally in response to how often), is smoking. The delivery of health improvement information on the topic of exercise is provided least often of the four assessed topics. Confidence level does not correlate to provision in the sample population and therapy radiographers are most confident to deliver health improvement information about diet and are least confident to deliver health improvement information about alcohol. Rationale for this has been deducted from thematic analysis of participant comments. The findings of this survey are comparable to the assessment of 91 radiographers in the RSPH questionnaire[9]. Although there was assessment of a broader range of healthy conversation topics in this study, when reviewing the four key messages of diet, exercise, smoking and alcohol cessation, radiographers demonstrated most confidence in discussions on the topic of healthy eating and least confidence in discussions surrounding alcohol as demonstrated in the sample population.

Key Themes Emerging from Thematic Analysis

Responsibility

Radiographers recognise that the delivery of health improvement is part of their job role however additional comments provided relating to job responsibility fail to support this across the whole sample population. Assessment of radiographer understanding of the term health improvement information could provide further rationale for this as there is potential that radiographer's perception of this definition differs to the key messages questioned in the study. Several additional health professions were named in explanations for selected answers to how often participants deliver health improvement information.

Current PHE projects to promote the role of AHPs in the delivery of health improvement information aim to address such issues and the MECC campaign[2] is a recognised priority for the AHP public health lead. Based on this sample population it is evident that not all radiographers are MECC and there is capacity for further promotion of this message. The RSPH identify the opportunities the need for training with the MECC strategy. The importance of this should be translated to professional organisations to further support AHP's with increased awareness of public health training opportunities.

" Dietitians provide this" Q16 - Healthy eating #73

"Oncologists in my department are very good at giving smoking cessation advice/help, sometimes I don't think giving advice is appropriate" Q8 - Smoking #11

"Not sure this is the role of an RT or how this would come up in conversation" Q16 - Healthy eating #56

Knowledge, Confidence and Training

Links between confidence, knowledge and training were identified during analysis of qualitative data. Confidence as an isolated reason is not attributable to radiographer's decision to deliver health improvement information or not, this is highlighted as radiographers do not deliver health improvement information most often about the subject they are most confident to deliver. It should be considered that there is no method within this questionnaire to assess the actual knowledge of therapy radiographers on the individual health improvement topics, even with respondents who state that they are confident it is not possible to assess if they are qualified or adequately informed to deliver health improvement information.

It is essential to identify that the barrier to provision here is confidence resulting from lack of knowledge and training. Lack of knowledge is an identified barrier to provision across other AHPs, identified by physiotherapists[13] and dieticians[15]. It is beyond the scope of this study to assess pre-qualification training in health improvement for therapy radiographers however the need for integration of health improvement information within undergraduate curriculum should be considered. The current status of AHP public health undergraduate education has recently been assessed[20]. Although examples of good practice are identified, radiography is one of two professional groups identified for further emphasis on the contribution. The development of undergraduate education must be supported with continuous professional development to support the post registration workforce. Physiotherapists[13] and dieticians[15] report that training received in departments is limited in some areas of health improvement, supporting the findings of this study in which radiographers have identified training needs as a barrier to provision. The recent RSPH publication[9] identified that less than 50% of the participants had received training base, less than 20% of this was received in the preregistration academic setting and over 30% received in the workplace or through postgraduate training. Both the RSPH and the recent strategy for AHP and public health[9 10] documents highlight the need for further support with training.

With the exception of band 4 staff (only 2 respondents and no description of job role) a higher percentage of band 5 and 6 radiographers rarely or never provide information to patients compared to band 7 and 8. Changes in undergraduate training cannot be assessed from the data acquired but it is possible that changes in culture of the health care system as a result of promotion of patient choice[9] and an increased focus on patient experience of healthcare could influence radiographer's attitudes to providing this information.

"I do not have the knowledge to advise" Q16 - Healthy Eating #13

"No training or documentation available to give to patients. Not confident in giving advice - without official documentation it just sounds like nagging" Q12 - Alcohol Cessation #16

"I do not have enough knowledge to confidently talk to patients about this issue" Q12 - Alcohol Cessation #5

"there is no official line on it or any accompanying documents/training so how could I be confident I was not just spouting my own personal beliefs - our patients don't need that" Q16 - Healthy Eating #16

Patient needs

Radiographers added several comments surrounding concerns for patients needs whilst undergoing radiotherapy treatment. Some radiographers rationalised their decisions based on timing of delivery in relation to both information overload and medical concerns with changes in lifestyle following diagnosis or during treatment. Therapy radiographers recognise caring for patients as an essential component of practice and concerns for patient wellbeing are of priority to radiographers. Medical concerns are therefore a promoting factor or barrier to provision of health improvement information.

The technologist element to the role of therapy radiographers results in a focus on the technical delivery. Variations in patient contour as a result of lifestyle changes are recognised by therapy radiographers, for example if a patient lost weight during treatment this has potential impact on dosimetry and this provided some rationale for limited provision. In contrast to this therapy radiographers demonstrated that if a lifestyle change was likely to reduce side effects of treatment, for example if a patient's wound has not healed as expected then radiographers highlighted this as rationale for providing health improvement information. Knowledge of the impact of improved lifestyle choices and impact on side effects, future health and cancer recurrence are areas in which knowledge could be addressed to enable those radiographers concerned with lack of knowledge to further deliver health improvement information.

The addition of comments surrounding care of patients and patient needs highlights the significance of timing of delivery of health improvement information. This topic can be a sensitive issue, and timing of delivery within the Radiotherapy setting should be an important factor for consideration with future implementation. A recent drive to focus on post treatment care, the development of survivorship programme [21] and advanced practitioners in survivorship roles could be a potential avenue to advocate change in lifestyle.

"Patients have a lot of info to take in about radiotherapy and they need to focus on this" Q18 - Healthy Eating # 10

"Often inappropriate during radiotherapy as it can affect treatment delivery - i.e. weight loss changing a patient's contour"Q16 - Healthy Eating #52

Radiographer Perceptions

This theme emerged as radiographers' rationalised absence of delivery and confidence due to the behaviour and views of patients. This could be based on prior experience however radiographers did

not select the response *I have previously attempted to discuss exercise (or smoking/alcohol/diet) with a patient and they did not respond well* as a key explanation for lack of confidence in delivery. It is recognised that patients are receptive to receiving information on lifestyle changes and health improvement from health professionals [9] however assessment of this within disease specific populations is not covered and to fully understand patient attitudes further studies within oncology would be beneficial. The importance of health professionals reflecting upon their own attitudes and barriers to health improvement and the avoidance of making assumptions about the lifestyle of patients is therefore important to prevent lack of provision, this is emphasised in literature [12] and should be addressed during training programmes.

"A cancer diagnosis is not always linked to poor lifestyle or lack of fitness and exercise therefore patients are not looking to improve their current levels of exercise" Q20 - Exercise #65

*"Not the time patients would choose to stop"*Q8 - Smoking #56

*"Most smokers have already stopped or are actively trying"*Q8 - Smoking #7

Limitations of this study include the small sample population. However the use of survey monkey to enable the questionnaire to access the national population of therapy radiographers captures the UK view. The sample size numbers could be influenced by the promotion of the survey only using online methods, this may have excluded some participants from answering the questionnaire. The results from this study could inform further research to address in more detail the barriers and facilitators to provision through the use of an edited questionnaire or focus group based on the results found in this sample population. As respondents did not specify their job role it is not possible to ascertain if individual participants are more confident/knowledgeable if working in specialised patient education roles or if some answers were not representative of the population of therapy radiographers if completed by respondents that might have limited patient contact. The use of the likert scale could also lead to some subjectivity with answers received, some participants may quantify the frequency of occasionally or rarely differently to another and therefore it should be taken into consideration that there is potential for some subjectivity within the quantitative sample.

Conclusion

The findings of this study provide evidence to support the provision of key public health messages in radiotherapy practice. It should be considered that the findings of this study are specific to this small sample population. Radiographers recognise the importance of health improvement on the holistic wellbeing of patients and across most departments and individual therapy radiographers health improvement is an important topic and part of their job role. Analysis of individual public health messages; smoking, alcohol, diet and exercise demonstrates the requirement to address the key barriers to provision and to support radiographers with training opportunities. The development of a tool to guide departments with further implementation of key public health messages may provide some additional support. Understanding patient views on the role of the therapy radiographer is important to ensure that the recognised rapport between a radiographer and patient is not at risk. Continuous professional development and pre-registration training are factors that currently limit delivery of information and should be assessed in more detail with future studies.

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Appendix A - Questionnaire

1. Please state your Agenda for Change banding;

- [ ] 4
- [ ] 5
- [ ] 6
- [ ] 7
- [ ] 8

2. Please state the number of years clinical experience that you have;

- [ ] 0 - 2
- [ ] 2 - 5
- [ ] 5 - 10
- [ ] 10 - 15
- [ ] 15+

3. Health Improvement can improve the holistic wellbeing of a patient;

- ( ) Strongly agree
- ( ) Agree
- ( ) Neither agree or disagree
- ( ) Disagree
- ( ) Strongly disagree
- ( ) I don't know

4. Health Improvement is an important topic in the Radiotherapy Department;

- ( ) Strongly agree
- ( ) Agree
- ( ) Neither agree or disagree
- ( ) Disagree
- ( ) Strongly disagree

5. The delivery of Health Improvement Information is part of my role as a Therapy Radiographer;

- ( ) Strongly agree
- ( ) Agree
- ( ) Neither agree or disagree
- ( ) Disagree
- ( ) Strongly disagree

6. The delivery of Health Improvement Information is the role of; (please tick all that apply)

- [ ] General Practitioners
- [ ] Nurses
- [ ] Hospital Based Doctors
- [ ] Allied Health Professionals
- [ ] Midwives
- [ ] Public Health England
- [ ] Other - please state below

Other (please specify)

7. How often do you provide Health Improvement Information about smoking to patients?

- ( ) Very frequently
- ( ) Frequently
- ( ) Occasionally
- ( ) Rarely
- ( ) Never

8. Your selected answer to question 7 is because; (please tick all that apply)

- [ ] Radiotherapy is not a good time to deliver information about smoking cessation
- [ ] I do not have enough time to discuss smoking cessation with patients
- [ ] I smoke myself and therefore feel that this would be contradictory
- [ ] It is important to advise patients about smoking cessation
- [ ] Time is allocated for discussion about general health improvement with patients during on treatment reviews
- [ ] Other - please state below

Other (please specify)

9. I would be confident to advise patients about smoking cessation programmes;

- ( ) Strongly agree
- ( ) Agree
- ( ) Neither agree or disagree
- ( ) Disagree
- ( ) Strongly disagree

10. Your selected answer to question 9 is because; (please tick all that apply)

- [ ] I am unaware of the information that I should provide to patients about smoking cessation
- [ ] I have previously attempted to discuss smoking cessation with a patient and they did not respond well
- [ ] Other staff in my team do not provide information so I would be the only team member
- [ ] I smoke myself and therefore I feel this would be contradictory
- [ ] I am aware of smoking cessation information and where to direct patients for support within my trust
- [ ] I am aware of smoking cessation information and where to direct patients for support nationally
- [ ] Other - please state below

Other (please specify)

11. How often do you provide Health Improvement Information about alcohol to patients?

- ( ) Very Frequently
- ( ) Frequently
- ( ) Occasionally
- ( ) Rarely
- ( ) Never

12. Your selected answer to question 11 is because; (please tick all that apply)

- [ ] Radiotherapy is not a good time to deliver information about alcohol cessation/misuse
- [ ] I do not have enough time to discuss alcohol cessation/misuse with patients
- [ ] I drink alcohol myself and therefore feel that this would be contradictory
- [ ] It is important to advise patients about alcohol cessation/misuse
- [ ] Time is allocated for discussion about general health improvement with patients during on treatment reviews
- [ ] Other - please state below

Other (please specify)

13. I would be confident to advise patients about alcohol cessation/misuse programmes;

- ( ) Strongly agree
- ( ) Agree
- ( ) Neither agree or disagree
- ( ) Disagree
- ( ) Strongly disagree

14. Your selected answer to question 13 is because; (please tick all that apply)

- [ ] I am unaware of the information that I should provide to patients about alcohol cessation/misuse
- [ ] I have previously attempted to discuss alcohol cessation/misuse with a patient and they did not respond well
- [ ] Other staff in my team do not provide information so I would be the only team member
- [ ] I drink alcohol myself and therefore I feel this would be contradictory
- [ ] I am aware of alcohol cessation/misuse information and where to direct patients for support within my trust
- [ ] I am aware of alcohol cessation/misuse information and where to direct patients for support nationally
- [ ] Other - please state below

Other (please specify)

15. In relation to general healthy eating (not treatment related dietary advice); How often do you provide Health Improvement Information about diet to patients?

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Never

16. Your selected answer to question 15 is because; (please tick all that apply)

- [ ] Radiotherapy is not a good time to discuss dietary advice with a patient
- [ ] I do not have enough time to discuss dietary advice with patients
- [ ] I do not have a healthy diet myself and therefore feel that this would be contradictory
- [ ] It is important to advise patients about a healthy diet and available support
- [ ] Time is allocated for discussion about general health improvement with patients during on treatment reviews
- [ ] Other - please state below

Other (please specify)

17. In relation to general healthy eating (not treatment related dietary advice); I would be confident to advise patients about dietary support

- ○ Strongly agree
- ○ Agree
- ○ Neither agree or disagree
- ○ Disagree
- ○ Strongly disagree

18. Your selected answer to question 17 is because; (please tick all that apply)

- [ ] I am unaware of the information that I should provide to patients about a healthy diet and where to access support
- [ ] I have previously attempted to discuss healthy eating with a patient and they did not respond well
- [ ] Other staff in my team do not provide information so I would be the only team member
- [ ] I do not have a healthy diet myself and therefore I feel this would be contradictory
- [ ] I am aware of healthy eating information and where to direct patients for support within my trust
- [ ] I am aware of healthy eating information and where to direct patients for support nationally
- [ ] Other - please state below

Other (please specify)

19. In relation to general exercise (not treatment related exercises); How often do you provide Health Improvement Information about exercise to patients?

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Never

20. Your selected answer to question 19 is because; (please tick all that apply)

- [ ] Radiotherapy is not a good time to discuss exercise with a patient
- [ ] I do not have enough time to discuss exercise with patients
- [ ] I do not exercise myself and therefore feel that this would be contradictory
- [ ] It is important to advise patients about exercise and available support
- [ ] Time is allocated for discussion about general health improvement with patients during on treatment reviews
- [ ] Other - please state below

Other (please specify)

21. In relation to general exercise (not treatment related exercises); I would be confident to advise patients about exercise support

- ○ Strongly agree
- ○ Agree
- ○ Neither agree or disagree
- ○ Disagree
- ○ Strongly disagree

22. Your selected answer to question 21 is because; (please tick all that apply)

- [ ] I am unaware of the information that I should provide to patients about exercise and where to access support
- [ ] I have previously attempted to discuss exercise with a patient and they did not respond well
- [ ] Other staff in my team do not provide information so I would be the only team member
- [ ] I do not exercise myself and therefore I feel this would be contradictory
- [ ] I am aware of exercise information and where to direct patients for support within my trust
- [ ] I am aware of exercise information and where to direct patients for support nationally
- [ ] Other - please state below

Other (please specify)

23. In relation to your own lifestyle please add your opinion about the following statement; Healthy living and associated lifestyle choices are important to me

- ○ Strongly agree
- ○ Agree
- ○ Neither agree or disagree
- ○ Disagree
- ○ Strongly disagree

Thank you for taking the time to complete this questionnaire.