

The importance of humour in oncology: a survey of patients undergoing radiotherapy

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ABSTRACT

Background Humour has long been considered an important coping tool for patients with cancer, but published quantitative data about its significance are limited. The purpose of our study was to survey patients with cancer undergoing radiotherapy regarding their opinions about the use of humour in their care.

Methods An anonymous 35-item questionnaire evaluating the patient experience, including the value of humour, was developed by an interdisciplinary team of health care providers (HCPs) working within the Radiation Medicine program. This anonymous, voluntary, paper-based survey for self-completion required approximately 10 minutes to finish and was administered during the fall of 2018 and the spring of 2019.

Results For the 199 patients who completed the survey [108 women, 89 men (2 respondents did not specify)], median age was 68 years. That group represents approximately 30%–35% of the patients on treatment during the study period. Almost all respondents (86%) indicated that, during their visits to the cancer centre, it was “somewhat important” or “very important” for health care providers (HCPs) to use appropriate humour, and 61% of respondents indicated using humour “frequently” or “always” when dealing with their individual cancers. Most respondents (79%) said that humour decreased anxiety, and 86% indicated that laughing was considered “somewhat important” or “very important.” Approximately 4% of respondents even listed “sense of humour” as being the most important quality that they looked for in their interactions with their HCPs.

Conclusions Cancer patients undergoing radiotherapy clearly view humour as being important for coping and dealing with their disease, and oncology HCPs should routinely consider incorporating the use of appropriate humour into the care that they provide.

Key Words Humour, laughter, communication

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INTRODUCTION

The idea that humour and laughter are good for one's well-being is not new. Humour has been a part of civilization and human culture for millennia, and there has been general acceptance that it can make people feel better^{1,2}. Many anecdotes speak to the value of humour to affect health care as well^{3,4}. The true value of humour's ability to influence treatment outcomes and disease processes has long been debated^{5–7}.

Traditionally, the scientific study of humour has not been a priority in research. Fortunately, though, research studies have started to confirm that humour and laughter can improve quality of life for patients^{8–12}. Ample qualitative evidence supports the value of using humour in various

health care settings, and although the exact ways in which diseases are affected by humour remain uncertain, there appear to be clear physical and psychological benefits⁷. However, it has yet to be proved whether humour can actually affect the natural history of medical conditions, and therefore controversies and questions in the scientific literature about the impact and importance of humour for health remain^{6,7,13}. Those controversies and questions have increased interest in furthering research in this area, specifically to determine if the common beliefs in popular media and medical literature—that humour and laughter have health benefits—have any validity. That question has been studied in the primary care, critical care, and end-of-life settings^{14–16}.

A growing body of evidence also suggests that patients with cancer specifically can benefit from humour^{14,17,18}.

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Some of the positive effects of humour include relieving stress, improving coping, facilitating better communication, and improving trusting relationships with health care providers (HCPs), which clearly suggests that HCPs must be more aware and adaptive to the needs of patients with cancer, including how best to use humour where and when appropriate. It is obvious that the use of humour has to be individualized for each cancer patient and personalized to their circumstances. The published literature clearly indicates that patients with cancer appreciate the use of humour by their HCPs and would appreciate incorporation of more humour^{19,20}. Qualitative studies suggest that many patients with cancer frequently use humour to deal with their illness and that humour should be used more often by HCPs^{17,18,21}.

We believe that it is important to learn more about the perceptions that patients with cancer have about humour and their illness. Very few quantitative studies have addressed the perspectives of patients with respect to the importance of humour and its use as part of their care^{15,22}. It was felt that a survey of patients at our centre undergoing radiotherapy would be a useful way of evaluating the effect that humour has on our patients with cancer. The results would potentially help to inform and educate staff, making them more able to be responsive to the needs of patients. It could also help facilitate the training of HCPs, if necessary.

Published studies have confirmed the value of radiotherapy surveys to evaluate patient perceptions about their care and to generate suggestions about possible improvements^{23,24}. Most radiotherapy surveys focus on overall patient satisfaction related to radiation education, scheduling, and wait times for treatment. For quality improvement purposes (rather than for research), we have also, over the last decade, conducted similar patient satisfaction surveys at our centre. Patient participation in the surveys has tended to be quite good, often with up to 200 or more responses. Our idea was therefore to undertake another radiotherapy survey, but this time focusing on patient perspectives about the care delivered by HCPs and, specifically, the role of humour.

METHODS

An ethics-approved 35-item patient satisfaction questionnaire evaluating the patient experience for patients with cancer undergoing radiotherapy was developed by an interdisciplinary team of HCPs working within the Radiation Medicine program. It evaluated a variety of domains with respect to the care that patients receive at the cancer centre and the qualities thought to be most important, including patient-physician interactions, the role of humour, and relationships with other HCPs. It was an anonymous, voluntary, paper-based survey meant for self-completion and requiring approximately 10 minutes to finish. It was available in English and French versions because our hospital provides services in both of those languages.

A cross-sectional study design approach was used in the outpatient setting. Patients undergoing radiotherapy were asked if they wanted to participate in the study by completing the survey. The goal was to collect approximately 200 completed surveys. Patients were approached to complete the survey during a 2-week period in November

2018 (19th to 30th) and again in February 2019 (11th to 22nd) to attain sufficient accrual. One of the main objectives of this research project was to evaluate the importance of humour as perceived by the patients.

The survey responses were collated in spreadsheet fashion, and descriptive statistics summarize the results. The chi-square test was used to check for possible associations between variables.

RESULTS

The 199 patients (89 men, 108 women) who completed the survey represent approximately 30%–35% of patients who were undergoing radiation at our centre during the study periods. As shown in Table I, median age in this group was 68 years, and the most common diagnoses were breast, prostate, and lung cancer (approximately 62% of respondents). Of the respondents, 86% had been diagnosed with their cancer within the preceding year. Tables II and III summarize the responses to the humour-related questions.

Almost all respondents (86%) indicated that, during their visits to the cancer centre, it was “somewhat important” or “very important” for HCPs to use appropriate humour. Most respondents (61%) indicated using humour “always” or “frequently” when dealing with their individual cancers, and 62% indicated that there is “always” or “frequently” a time and place for humour when dealing with cancer. In fact, approximately 4% of respondents listed “sense of humour” as being the most important quality

TABLE I Demographics of the study population

Variable	Value	
	(n)	(%)
Patients	199	100
Sex		
Women	108	54
Men	89	45
Mean age (years)	68±34	
Age group		
40–49 Years	15	8
50–59 Years	37	19
60–69 Years	53	27
70–79 Years	57	29
≥80 Years	22	11
Cancer type		
Breast	58	29
Prostate	35	18
Lung	29	15
Head-and-neck	19	10
Gynecologic	17	9
Other	38	19
Time since cancer diagnosis		
<1 Year	170	85
2–5 Years	21	11
6–10 Years	3	2
>10 Years	3	2

TABLE II Responses to questions about humour on a 4-point Likert scale

Question	Response [n (%)]			
	Not at all important	Slightly important	Somewhat important	Very important
When thinking about your interactions with staff, how important is it for them to ...				
Use appropriate humour during your visits?	9 (5)	13 (7)	61 (31)	111 (56)
Tell appropriate jokes?	35 (18)	23 (12)	67 (34)	66 (33)
Laugh in an appropriate manner?	5 (3)	18 (9)	49 (25)	123 (62)
Use humour to help in decreasing your anxiety?	8 (4)	24 (12)	45 (23)	112 (56)
Use humour to help remember what you have been told?	26 (13)	26 (13)	69 (35)	70 (35)
Participate with you when using humour to communicate about your health situation?	27 (14)	21 (11)	64 (32)	78 (39)
Acknowledge your attempts at using humour in your communications?	15 (8)	26 (13)	66 (33)	84 (42)

TABLE III Responses to questions about humour on a 5-point Likert scale

Question	Response [n (%)]				
	Unsure	Never	Sometimes	Frequently	Always
Is there a time and place for humour when dealing with cancer?	4 (2)	6 (3)	65 (33)	48 (24)	75 (38)
Do you use humour to deal with cancer?	3 (2)	17 (9)	57 (29)	57 (29)	64 (32)

they looked for in their interactions with HCPs. Many respondents (79%) said that humour decreased anxiety. Laughing was considered “somewhat important” or “very important” by 85% of the respondents. Similarly, 70% felt that it was “somewhat important” or “very important” to use humour to remember information shared by their HCPs. That proportion compares with the approximately 67% who thought that HCPs telling jokes was of similar importance. In addition, 71% thought that the use of humour was “somewhat important” or “very important” when patients and HCPs were communicating about health issues, and 75% indicated that it was “somewhat important” or “very important” for HCPs not to ignore attempts by patients to use humour. The use of humour and its importance for patients with cancer did not appear to be correlated with age, sex, or cancer type. Patients also did not indicate (in the comments section or elsewhere) that they were offended by the use of humour by their HCPs.

DISCUSSION

The results from our study clearly demonstrate in a quantitative manner that humour and laughter are considered by many patients to be important tools for dealing with their cancer. The indication is that humour can help coping by decreasing anxiety and improving memory. Similarly, humour is suggested to help improve relationships with HCPs, given that respondents indicated a belief that appropriate humour should be used during their visits to the cancer centre. Those findings are consistent with research from other studies investigating the influence of humour on health, most of which have used mainly clinical ethnography designs^{13,14,17,18,21}.

All of this research points to the fact that humour is a vital communication tool for interactions between

patients and their HCPs. We know that it serves many purposes for patients with cancer, including helping them to connect and communicate with their HCPs, decreasing anxiety and promoting relaxation, and instilling some hope and joy. Palliative care experts believe that the value of humour should not be trivialized, even in the end-of-life setting^{16,14,22}.

Health care providers have to be made aware of the importance of humour and encouraged to use it in appropriate settings^{25,26}. Awareness of negative types of humour that are best avoided, such as mocking, sarcasm, and criticism, is also important^{4,9}. However, our results do not suggest any evidence of negative humour used by HCPs. As in any other aspect of communication, use of humour requires skill, practice, experience, and good judgment. We realize that not all HCPs might be comfortable incorporating humour into the care they provide, because this style of communication is generally not routinely taught. Training about how best to incorporate humour into clinical care might be needed. As in many aspects of medicine, there are no clear recipes about how achieve such incorporation, but fortunately, helpful suggestions can be found in the published literature^{20,25,27}. An interesting model called SMILES has been proposed and provides pragmatic suggestions that HCPs can use to gauge how and when to use humour during patient interactions²⁸.

It appears that humour can improve quality of life for patients and their HCPs^{4,9,19}. One study even demonstrated that laughter is important with respect to enhancing learning during cancer education workshops for health care workers²⁹, which should provide even more impetus for generalized adoption. The study also indirectly indicates that the time HCPs spend with their patients is important. There is evidence that patient satisfaction improves with

longer time spent during visits with physicians³⁰ and even that malpractice claims decline³¹. General chatting about nonmedical topics, laughter, humour, and giving patients adequate time to discuss their issues have all been identified as being valuable for relationship-building and improving overall satisfaction.

We hope that our study will add to the growing evidence about the significant role humour can play in the care of patients with cancer. The large proportion of patients indicating that they use humour to deal with their cancer was surprising even to us. A small proportion of patients even said that they considered humour to be the quality that they most valued in their HCPs. We hope that our study will be a wake-up call to cancer care providers, educators, and administrators to disseminate this information about the important role that humour plays and to look for ways to incorporate it into training. The concept of training HCPs about the appropriate use of humour is not new, but needs continued reminders and attention^{13,19,21,26}.

The strengths of our study include the relatively large sample size and the diversity of the patient population. Also, respondents were asked for their perspectives on clear and specific aspects of humour, making quantitative data collection possible. However, the study's limitations include the fact that only patients receiving radiotherapy were surveyed and the response rate was approximately 30%, which could represent a potential bias. Although we know that humour is important to patients, many questions remain about how exactly its importance is manifested. Detailed individual patient interviews might be a better way to fully explore why humour is so important—an approach that was not incorporated into our study design.

CONCLUSIONS

Patients with cancer undergoing radiotherapy view humour as an important tool for coping with their disease and enhancing their experience. They also believe that HCPs should be open to humour during their interactions with patients. Those findings clearly suggest that oncology HCPs should routinely consider incorporating the use of appropriate humour into the clinical care that they provide.

CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology's* policy on disclosing conflicts of interest, and we declare that we have none.

AUTHOR AFFILIATIONS

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REFERENCES

1. Apte ML. Disciplinary boundaries in humorology: an anthropologist's ruminations. *Humor* 1988;1:5–25.
2. Huescher JE. The role of humor and folklore themes in psychotherapy. *Am J Psychiatry* 1980;137:1546–9.
3. Goldstein JH. A laugh a day: can mirth keep disease at bay? *Sciences* 1982;22:21–5.
4. Penson RT, Partridge RA, Rudd P, et al. Laughter: the best medicine? *Oncologist* 2005;10:651–60.
5. Adamle KN, Ludwick R. Humor in hospice care: who, where, and how much? *Am J Hosp Palliat Care* 2005;22:287–90.
6. Martin RA. Humor, laughter, and physical health: methodological issues and research findings. *Psychol Bull* 2001;127:504–19.
7. Provine RR. *Laughter: A Scientific Investigation*. New York, NY: Viking; 2000.
8. Adams ER, McGuire FA. Is laughter the best medicine? A study on the effects of humor on perceived pain and affect. *Act Adapt Aging* 1986;8:157–75.
9. Bennett HJ. Humor in medicine. *South Med J* 2003;96:1257–61.
10. Berk R. The active ingredients in humor: psycho-physiological benefits and risks for older adults. *Educ Gerontol* 2001;27:323–39.
11. Hassed C. How humour keeps you well. *Aust Fam Physician* 2001;30:25–8.
12. Streat WB. Laughter prescription. *Can Fam Physician* 2009;55:965–7.
13. McCreaddie M, Payne S. Humour in health-care interactions: a risk worth taking. *Health Expect* 2014;17:332–44.
14. Dean RAK, Major JE. From critical care to comfort care: the sustaining value of humour. *J Clin Nurs* 2008;17:1088–95.
15. Granek-Catarivas M, Goldstein-Ferber S, Azuri Y, Vinker S, Kahan E. Use of humour in primary care: different perceptions among patients and physicians. *Postgrad Med J* 2005;81:126–30.
16. Pinna MAC, Mahtani-Chugani V, Sanchez Correas MA, Sanz Rubiales A. The use of humor in palliative care: a systematic literature review. *Am J Hosp Palliat Care* 2018;35:1342–54.
17. Johnson P. The use of humor and its influences on spirituality and coping in breast cancer survivors. *Oncol Nurs Forum* 2002;29:691–5.
18. Roaldsen BL, Sorlie T, Lorem GF. Cancer survivors' experiences of humour while navigating through challenging landscapes—a socio-narrative approach. *Scand J Caring Sci* 2015;29:724–33.
19. Gilligan B. A positive coping strategy. Humour in the oncology setting. *Prof Nurse* 1993;8:231–3.
20. Joshua AM, Cotroneo A, Clarke S. Humor and oncology. *J Clin Oncol* 2005;23:645–8.
21. Tanay MA, Wiseman T, Roberts J, Ream E. A time to weep and a time to laugh: humour in the nurse-patient relationship in an adult cancer setting. *Support Care Cancer* 2014;22:1295–301.
22. Herth K. Contributions of humor as perceived by the terminally ill. *Am J Hosp Care* 1990;7:36–40.
23. French J, McGahan C. Measuring patient satisfaction with radiation therapy service delivery. *Health Manage Forum* 2009;22:40–50.
24. Hashmi F, Gregor N, Liszewski B, et al. It only takes a minute: the development and implementation of a patient experience survey in radiation therapy. *J Med Imaging Radiat Sci* 2019;50:5–11.
25. Erdman L. Laughter therapy for patients with cancer. *Oncol Nurs Forum* 1991;18:1359–63.
26. Wild B. Humor in medicine—the art of leaping over shadows [German]. *Dtsch Med Wochenschr* 2017;142:1919–24.
27. Trent B. Ottawa lodges add humour to armamentarium in fight against cancer. *CMAJ* 1990;142:163–4,166.
28. Borod M. SMILES—toward a better laughter life: a model for introducing humor in the palliative care setting. *J Cancer Educ* 2006;21:30–4.
29. Cueva M, Kuhnley R, Lanier A, Dignan M. Healing hearts: laughter and learning. *J Cancer Educ* 2006;21:104–7.
30. Gross DA, Zyzanski SJ, Borawski EA, Cebul RD, Stange KC. Patient satisfaction with time spent with their physician. *J Fam Pract* 1998;47:133–7. [Erratum in: *J Fam Pract* 1998;47:261]
31. Levinson W, Roter DL, Mullooly JP, Dull VT, Frankel RM. Physician-patient communication. The relationship with malpractice claims among primary care physicians and surgeons. *JAMA* 1997;277:553–9.