Original Article

Addressing the competency of breaking bad news: What are Canadian general paediatric residency programs currently doing

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Abstract

Objective: To describe how breaking bad news (BBN) is currently taught in Canadian general paediatric residency programs and the confidence level of fourth year paediatric residents (Ped-PGY4) in BBN and managing end-of-life-care (EOLC).

Methods: A prospective, cross-sectional survey of General Paediatric Residency Program Directors (PDs) and Ped-PGY4s was conducted.

Results: When learning to BBN, residents state faculty observation (22/23) and interactive workshops (14/23) are the most helpful, while PDs state interactive workshops (9/16) and deliberate practice (5/16) are ideal. Residents identified a knowledge gap and discomfort with providing anticipatory guidance, and symptom management, including prescribing opioids.

Conclusions: In the era of competency-based medical education, there is an opportunity to create a standardized national curriculum addressing universal competencies related to BBN and EOLC.

Keywords: *Breaking bad news; End-of-life-care; Medical education; Paediatrics; Residents.*

As defined by Bor et al., breaking bad news (BBN) includes, "... situations where there is either a feeling of no hope, a threat to a person's mental or physical well-being, a risk of upsetting an established lifestyle, or where a message is given which conveys to an individual fewer choices in his or her life." (1) BBN can be extremely challenging; a number of studies have shown physicians experience a high level of physiological arousal and anxiety (2–4) before, during and following BBN. Growing evidence suggests the desire of trainees and clinicians to gain additional training and education around communicating difficult information (5).

How information is delivered can have a significant impact on the patient and family's perspective of the child's illness, their long-term relationship with clinicians, and both patient and provider satisfaction (6–8). In situations that involve end-of-life-care (EOLC), poor communication and lack of anticipatory guidance can result in 'complicated grief', defined as

prolongation of the bereavement period and higher rates of post-traumatic stress disorder (9). Receiving bad news from a skilled, empathic care provider can reduce patient and parental anxiety, improve ongoing communication with the health care team, and improve psychological adjustment based on lower rates of complicated grief (9).

BBN is a competency expected of all resident trainees (10,11). Ensuring residents are able to competently perform entrustable professional activities, such as BBN, is fundamental. Are the current methods employed for teaching the skills required to BBN in line with the perceived needs of paediatric residents?

Our objective is to describe how BBN is taught in Canadian General Paediatric residency programs from two vantage points: the Program Director (PD), and the fourth-(final)-year paediatric resident (Ped-PGY4). Secondly, we will describe the confidence of Ped-PGY4s in the area of EOLC and BBN.

METHODS

Study design

A cross-sectional prospective study of Canadian General Paediatric residency programs between April 2015 and September 2016. The PD survey was administered in April 2015; the Ped-PGY4 survey was administered between April and September 2016.

Participant identification

PDs and Ped-PGY4s writing the Royal College of Physicians and Surgeons of Canada (RCPSC) board exams in 2016 were invited to partake via e-mail by the Canadian Pediatric Program Directors Research Group. Two separate surveys with unique web links were created and made available in English only. Participants chose and completed the relevant *Survey monkey* survey by clicking on the web link appropriate to their position as a PD or Ped-PGY4. The study received research ethics board approval from Western University; consent to participate was inferred based on survey completion.

Data collection

Given the descriptive nature of the study, a sample size was not calculated. Results from *Survey Monkey* were exported to Excel for analysis. Descriptive and graphical statistics were used to describe program characteristics and resident demographics. Dichotomous responses related to ability to BBN and comfort/knowledge with EOLC are presented as proportions.

RESULTS

PD survey

PDs from all 17 stand-alone Canadian paediatric residency programs completed the survey. All programs were accredited by the RCPSC.

Fifteen (15/17) programs utilize the objective structured clinical examination (OSCE) to assess the competency of BBN. Two programs utilize the OSCE as the only method of assessment. Seven programs run an interactive workshop. Six programs use either didactic or online teaching. Four programs use an interactive workshop supplemented by didactic/online teaching. Three programs utilize didactic/online lecture, interactive workshop, structured communication course, and an OSCE. Finally, two programs report using no formal method.

Nine of 16 PDs endorse utilizing an interactive workshop and 5 of 16 state that deliberate practice is the ideal method to teach BBN. One PD feels a combination of deliberate practice, an interactive workshop, didactic teaching, direct observation and trial and error is ideal. One PD believes direct observation and trial and error is ideal. No PD feels a didactic lecture or self-directed online module(s) as the only method of instruction is appropriate.

Resident survey

Twenty-three of 112 residents completed the survey with 21 answering all of the questions. See [Table 1](#) for demographics.

Residents unanimously (23/23) agree that paediatric residents should receive formal training in BBN. Fifteen of the 23 residents report receiving formal training in BBN. While eight residents (8/23) report no formal training in BBN, seven of those residents report observing faculty and BBN during residency. In total, 7/23 learned about BBN solely through observation and by personally BBN; of those 7, one feels this is adequate training while the remaining six feel otherwise. One resident reports BBN with no prior training or observation. During residency, 20/23 directly observed faculty and 20/23 personally delivered bad news with three residents (3/23) reporting never BBN. Eleven residents (11/23) participated in a workshop on BBN. Ten residents (10/23) report attending a didactic lecture on BBN. Overall, only 9/23 residents believe their training adequately prepared them for BBN ([Figure 1](#)).

According to residents, direct faculty observation and an interactive workshop are the most helpful while self-guided modules and didactic teaching are least helpful ([Figure 2](#)).

Overall, residents report being confident in BBN (15/21). They are confident in creating a supportive environment (20/21), avoiding medical jargon and using proper layman's terms (20/21), adjusting the rate and amount of information shared (16/21), listening to parental concerns (21/21), and empathizing with parents (21/21). Residents report less confidence with regards to anticipating possible parental responses (9/21) and in dealing with difficult emotions from families (9/21). Fewer than half (9/21) the residents are confident they will 'avoid portraying more hope or optimism' than they believe exists ([Table 2](#)).

Residents were asked to rate their knowledge and confidence with regards to different aspects of EOLC. Six (6/23) feel their training prepared them to confidently BBN to a child/adolescent. Although residents feel better equipped to inform parents and other family members regarding their child having

Table 1. Resident demographics

	No.	%
Age		
25–29	11	47.8
30–34	9	39.1
35–39	1	4.3
>40	2	8.7
Gender		
Male	7	30.4
Female	16	69.6
Career Trajectory		
General Paediatrics	15	65.2
Subspecialty Training	8	34.8

Figure 1. Canadian Paediatric Residents' experience with breaking bad news training during residency.

Figure 2. Canadian Paediatric Residents' Preferred Instructional Method for breaking bad news.

a life-limiting illness (13/23), 3/23 still disagree. While the majority of residents feel comfortable to discuss goals of care (15/21) and to answer questions about do-not-attempt-resuscitation orders (15/21), fewer than half (9/21) feel comfortable providing anticipatory guidance around EOLC. Fewer than half (8/21) feel comfortable with symptom management for a dying child, such as prescribing opioids; however, 15/21 know how and from where to obtain additional support for EOLC. Following a patient's death, 8/21 residents would be comfortable completing the death certificate and 9/21 would know when to notify the coroner or medical examiner. See Table 3 and Figure 3 for complete results.

DISCUSSION

Our results suggest PDs and residents agree BBN should be learned through clinical observation of faculty as well as an

interactive workshop that includes simulation/role playing or deliberate practice. Although these methods have shown some success in the literature, there is growing evidence that role-modeling is over used (12). While small group multi-modal communication-based workshops have been successful in increasing physician confidence in BBN (12,13), a recent systematic review utilizing standardized patients showed limited benefit in actual improvement of physician communication skills (14,15). Previous work suggests that physicians routinely overrate their ability to communicate effectively (16) which may contribute to this apparent discrepancy between providers' personal perceptions and evaluations of structured encounters.

Our results demonstrate a significant mismatch between what residents and PDs view as being the ideal method and what currently occurs. Although 11 programs use an interactive workshop or a structured communications course, 6 programs utilize didactic teaching or online modules despite PDs unanimously

Table 2. Paediatric residents' confidence in breaking bad news

I am confident in my ability to...	Agree (N)	Neutral (N)	Disagree (N)
Break bad news in general	15	6	0
Create a supportive environment	20	1	0
Reduce or eliminate signs that I am nervous or anxious	14	7	0
Use language that is nontechnical and easily understood	20	1	0
Adjust the rate and amount of information I provide	16	5	0
Listen to parental concerns	21	0	0
Explore a parent's expectations	20	1	0
Empathize with a parent	21	0	0
Avoid portraying more hope or optimism than I believe exists to deal with the parent's emotions	9	11	1
Summarize information in a way that is easy to understand	18	3	0
Anticipate possible responses by parents	12	8	1
Deal with difficult emotions from families	12	9	0
Close the conversation in an appropriate way	15	5	1

Table 3. Paediatric Residents' self-assessment of knowledge acquisition and confidence with regards to various aspects of EOLC (total N=21)

	Strongly agree (N)	Agree (N)	Neutral (N)	Disagree (N)	Strongly disagree (N)
Tell a child/adolescent they have a terminal or life-limiting illness	0	6	5	10	0
Tell the parents/family that their child has a terminal or life-limiting illness	0	13	5	3	0
Provide anticipatory guidance in regards to end of life care	1	8	5	7	0
Discuss goals of care/treatment	2	13	4	2	0
Discuss and answer the patient or parent's questions regarding 'Do not (attempt) resuscitation' orders	1	14	3	3	0
Provide symptom management for a child at the end of life (including prescribing opioids)	0	8	4	9	0
Where to find assistance if you don't feel comfortable with the above	4	11	5	1	0
Know when to notify the coroner of a death	1	8	9	3	0
Complete death certificate	0	8	7	5	1

reporting these methods as inappropriate. Currently used methods, time constraints, limited resources (human and physical), and cost may be contributing factors in the decision to select one or more particular teaching method.

The survey was administered in English only which may have limited participation by French-speaking residents, potentially reducing the generalizability of the results. The generalizability, validity, and the conclusions that can be drawn from the resident survey are also limited by the low response rate. The low response rate among residents may be secondary to the timing of the survey relative to the RCPSC General Paediatric board examinations. Despite the small numbers, our results are comparable to those among American chief paediatric residents where 64% versus 57% (13/23) and 31% versus 26% (6/23)

were comfortable BBN to parents and children respectively (17). It is also concerning that 8/23 Canadian paediatric residents state having no formal BBN training. The majority of these residents report observing faculty and, although residents report there is value in direct observation their responses suggest that they do not equate observation with formal training. Of the 15/23 residents who report receiving formal training, only nine felt the method was adequate for their learning. Based on Bakers et al. and our results, as well as the existing body of literature, and the importance of BBN, a change in training methods appears indicated. This will require intentional planning and utilization of resources by paediatric programs.

The competency of delivering bad news appears in the Objectives of Training for General Paediatrics, and it is

Figure 3. Paediatric Residents' self-assessment of knowledge acquisition and confidence with regards to various aspects of end-of-life-care.

therefore concerning that two programs have no formal method of teaching or assessing BBN. Furthermore, three residents report never BBN during their residency training. Residents cannot be expected to achieve competence in a skill they have never attempted during their training. With the national transition to competency-based medical education underway for all RCPSC programs, a better approach to teaching BBN based on the existing literature would include teaching in small group settings, using a multimodal approach (12), with repeated exposure and subsequent practice (18). Seeking and incorporating multisource feedback, including feedback from patients and families can help ensure true competence is achieved (19).

Our results reveal concerning trends with respect to EOLC. Residents report lacking knowledge and confidence to provide anticipatory guidance (7/21) and symptom management, including prescribing opioids (9/21). Perhaps anxiety associated with preparing for the RCPSC impacted residents' perception of their knowledge and confidence? However, further analysis revealed resident responses, when compared based on timing of survey completion, demonstrated minimal variation (results not shown). As decreased anticipatory guidance is associated with higher rates of complicated grief including prolongation of the bereavement period and higher rates of post-traumatic stress disorder, this uncertainty raises issues about the adequacy of the current model of training. Although residents are uncomfortable with symptom management, the majority (15/21) report knowing pathways to access assistance. Competencies universal to all medical and surgical specialties require *all* physicians have a working knowledge of the principles and skills of EOLC (20), including but not limited to BBN.

As programs transition into a competency-based format an opportunity now exists to devise a national curriculum

standardizing resident education across the country for competencies related to BBN and EOLC.

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