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Psychiatry Resident Education in Palliative Care: Opportunities, Desired Training, and Outcomes of a Targeted Educational Intervention

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Abstract

Objectives—To assess the educational offerings provided to psychiatry residents in palliative care as well as their concomitant interest in learning more about this subspecialty. To measure the pre- and post-levels of competence, concern, and knowledge exhibited by psychiatry residents when completing a formalized clinical rotation in hospice and palliative care, with additional comparisons to family and internal medicine residents completing the same clinical rotation.

Methods—Fifty-two Psychiatry Program Directors and 98 psychiatry residents completed an online survey assessing the current course offerings and level of interest in palliative care. Thirty psychiatry residents were additionally evaluated before and after completion of a clinical rotation in hospice and palliative care.

Results—Few programs offered any formalized training in palliative care, although nearly all psychiatry residents reported interest in this area. A clinical rotation in palliative care significantly increased psychiatry residents' competence and knowledge while simultaneously decreasing their concerns about practice in this area; most were at levels comparable to family and internal medicine residents completing the same rotation. Psychiatry residents' knowledge of pain assessment, pain management, and generalized non-pain management were also enhanced during the rotation.

Conclusions—Results indicate that training opportunities in palliative care are lacking for psychiatry residents in the United States although residents report strong interest in this area. This study finds psychiatry residents can benefit as much as other disciplines from receiving palliative care training. The need to offer such training within psychiatry residencies is highlighted and the welcoming of psychiatrists into palliative care is suggested.

Recent research efforts repeatedly underscore the central importance of addressing psychiatric and psychosocial issues to optimize care of patients with advanced, life-threatening illness.¹ These issues include problems such as depression, anxiety, suicidal ideation, delirium, fatigue, grief, loss, and bereavement, as well as questions regarding the capacity to make decisions and overall quality of life.¹ Psychiatric morbidity among terminally ill patients is quite common, with estimates of depression rates being as high as 58%,^{2–5} delirium as high as 85%,^{6–8} and symptoms of anxiety in as many as 70%.⁹

Psychiatric complications such as these found at the end-of-life can be addressed, but often go unrecognized,^{10–12} untreated, or under-treated.^{12–15}

Several factors may contribute to the under-recognition and under-treatment of psychiatric problems at the end-of-life, including psychiatrists not being readily available to care for or consult on medically ill patients, or feeling inadequately prepared to assess and treat medically ill and dying patients.¹⁰ Insufficient education for psychiatry students or residents in end-of-life, hospice, or palliative care may compound this lack of competence or knowledge and increase concern among this group.¹⁶

Tait and Hodges (2009)¹⁷ examined psychiatric residents' attitudes toward palliative training at the University of Toronto, Canada. Nearly all (91%) of the residents noted it was important to receive training in palliative care. Only one resident reported having "enough" training in palliative care. Most residents in the study desired more training, particularly longitudinal opportunities that would occur in varied clinical contexts. These trends were similarly found in earlier studies when students, residents, and faculty from multiple medical disciplines were surveyed (e.g., internal medicine, family medicine, surgery).^{18,19}

When asked about specific areas of palliative care, the psychiatry residents in the Tait and Hodges¹⁷ study felt prepared in areas of managing pain and recognizing opioid tolerance, as well as in certain areas of communication (e.g., addressing patients' fears, discussing end-of-life issues, and delivering bad news). The residents noted a significant lack of preparedness in cultural or spiritual aspects of care, assisting in patients' efforts to say goodbye, or handling requests for physician-assisted suicide. These findings led the researchers to note that "education is not currently preparing psychiatrists to feel competent in many of the aspects that both trainees and patients agree are important" (p. 456).¹⁷

These previous studies lead to continued questions regarding: (1) What are the current training opportunities for psychiatry residents in the area of hospice and palliative care in the United States? (2) What is the actual level of interest among U.S. psychiatry residents in learning more about hospice and palliative care? If interested, what topics would U.S. psychiatry residents view as most important to learn in this area? (3) If given the opportunity to complete a rotation in hospice and palliative care, could these psychiatry residents learn the requisite skills necessary to demonstrate competence in this area? Would they be as competent as other residents completing the same training?

This study offers a multi-faceted examination of these questions using samples of psychiatry residents from various training programs in the United States. First, a pilot assessment of educational offerings for psychiatry residents in palliative care was completed. Second, psychiatry residents' level of interest in learning about palliative care was measured, with a listing of the palliative care topics deemed most important by this group. Third, pre- and post-measures of psychiatry residents' competence, concern, and knowledge were evaluated after completion of a formalized clinical rotation in hospice and palliative care. Finally, the competence, concern, and knowledge among psychiatry residents before and after completion of this clinical rotation were compared with residents from family medicine and internal medicine who undertook the same rotation. Such a comparison allowed for even greater discernment regarding how palliative care training may impact specialty groups differently. In sum, this study offers an initial evaluation of whether psychiatry residents are being trained in palliative care, what components they are seeking in this type of training, and how a formalized training opportunity may help advance their level of expertise in this field.

METHOD

Participants

The participants in this study were three-fold. First, psychiatry residency program directors from 158 U.S. Psychiatry Residency Programs, whose names were gathered from the American Association of Directors of Psychiatry Residency Programs Directory, 2006, were surveyed to ascertain the current educational offerings in palliative care available to their residents. Of the 158 Directors, 52 responded for a 33% response rate. Second, of the 52 participating Program Directors, 17 agreed to forward an additional survey to their respective psychiatry residents and fellows. This survey asked about the residents' and fellows' perspectives toward training in palliative care, to which 98 psychiatry residents and fellows responded. The 98 psychiatry residents and fellows from the 17 programs were equally divided between males (50%) and females (50%). The residents and fellows spanned all years of training, with 24% in their first year (PGY-I), 18% PGY-II, 25% PGY-III, 22% PGY-IV, and 10% > PGY-IV. Third, 30 psychiatry residents from a single institution were evaluated before and after completion of a clinical rotation in hospice and palliative care. These 30 psychiatry residents included only PGY-II and PGY-III trainees (73% and 27% respectively), and represented both females (63%) and males (37%).

Procedures

Procedures for data collection and analysis were reviewed and approved by both the Institutional Review Board of The Institute for Palliative Medicine at San Diego Hospice and the Human Research Protections Program at the University of California, San Diego.

Psychiatry Residency Program Director Survey—An anonymous web-based survey was e-mailed to the Psychiatry Residency Program Directors. The survey inquired about the current availability of palliative care lectures, curricula, or clinical rotations.

Psychiatry Resident Survey—The psychiatry resident survey asked whether courses or lectures pertaining to palliative care had been completed. On the survey, residents were further asked to indicate their level of agreement with the following questions using a 4-point scale (strongly agree–strongly disagree): (1) I am interested in learning more about the psychiatric aspects of palliative care. (2) I believe psychiatrists should be trained in psychiatric aspects of palliative care. (3) I believe there should be a curriculum for psychiatry residents to learn about palliative care. Finally, the psychiatry residents selected from a list of 17 topics those they believed were “extremely important” to learn about in the field of palliative care.

Educational Intervention Pre- and Post-Assessments—Pre- and post-test assessments were given to 30 psychiatry residents who completed a 32–144 hour required clinical rotation (ranging from 1 to 4 days per week for up to 4 weeks) in hospice and palliative care between 2004 and 2010. Data were compared with residents from five other training programs in the San Diego area; three in internal medicine, and two from family medicine. The rotation was required in two programs, and offered as an elective in the remaining three.

The rotation included supervised clinical activities, communication training, as well as basic instruction and accompanying time for reflection and participation with interdisciplinary team members; a model described as “ideal” when training in hospice and palliative medicine.²⁰ The clinical experiences occurred in a 24-bed inpatient acute care hospice setting, as well as in an accompanying home hospice program, which has an average of over 900 patients on census.

The rotation further included completing four modules with pre- and post-testing from the Education for Physicians on End of Life Care (EPEC) curriculum. These four modules were Communicating Bad News, Negotiating Goals of Care, Common Physical Symptoms, and Pain Management.^{21–23} Residents were given access to additional EPEC curriculum modules such as advanced care planning, anxiety, delirium, depression, and withdrawing or withholding treatment. The residents could review these additional modules as their time and interest allowed. Residents further participated in a standardized patient exercise regarding communicating bad news, attended regularly scheduled didactic presentations each week, and many completed a “personal reflection project,” which involved the creation of an essay, poem, or work of art to describe their personal experience in caring for dying patients.

On the first day of the clinical rotation, each resident completed a 25 minute pre-test assessment. A post-test assessment was given on the last day of the clinical rotation. To address concern that residents may ‘learn’ the answers to the questions, two different forms of the exam that were psychometrically equivalent were given during the pre- versus post-assessments.

The pre-post assessment involved a validated test of competence, concern, and knowledge that has been administered to more than 3000 residents nationally (e.g., pediatrics, neurology, oncology) as part of the National Residency Education Project.²⁴ In this assessment, residents first rated their self-perceived level of competence on 26 items pertaining to clinical palliative care. On each item, residents rated their competence using a 4-point scale ranging from “4 = Perform independently, 3 = Perform with minimal supervision, 2 = Perform with close supervision, and 1 = Need further basic instruction.” Within each item, residents rated their self-perceived level of competence on tasks related to hospice and palliative care with examples including the ability to “discuss advance directives with patients,” “pronounce death and complete a death certificate,” or “assess and manage terminal dyspnea.”

Residents’ concern was measured via 20 items rated on a 4-point Likert scale with 4 = very concerned, 3 = somewhat concerned, 2 = somewhat unconcerned, and 1 = not concerned. The residents were provided with five patient scenarios with complexities such as providing maximal pain relief throughout a patient’s illness, withdrawing non-oral feedings, withdrawing intravenous hydration, withdrawing parenteral antibiotics, and withdrawing ventilator support. Residents noted their level of concern regarding how each case may violate state law, medical practice standards, ethical norms, or their personal religious or ethical beliefs.

Finally, residents’ knowledge was measured using 10 clinical vignettes and 36 corresponding multiple-choice questions. Each vignette highlighted patients with varying demographics and diagnoses who exhibited differing levels of acute or uncontrolled pain. Residents selected the most appropriate responses to questions about prognostication, medication regimens, suitable psychosocial treatments, implications of the Medicare hospice benefit, assessment of decision-making capacity, and utilization of effective patient–physician communication techniques. These topics then comprised the six clinical areas that have been recently formulated in this knowledge domain: pain assessment, pain management, non-pain assessment, non-pain management, drug side-effects, and communication.^{25,26}

Data Analyses

The Program Director and psychiatry resident survey responses were tabulated via Microsoft Excel and frequencies were obtained. The topics found to be “extremely important” to learn

about in palliative care were created by using the frequency of responses for each topic, thereby creating the list of the psychiatry residents' top 10 most frequently endorsed topics of interest in palliative care. Pre- and post-assessments of the 30 psychiatry residents' competence, concern, and knowledge were analyzed using the Wilcoxon signed rank tests because the sample size was considered small ($n = 30$) and the data were not normally distributed. ANOVAs were employed to assess the competence, concern, and knowledge differences between psychiatry residents' scores and those of family medicine and internal medicine residents who simultaneously completed the clinical rotation at the same institution. All results were considered significant if found at the $P = 0.05$ level.

RESULTS

Psychiatry Residency Program Director Survey

Approximately one-third of the 52 directors responding (38%, $n = 20$) noted that no palliative care education was provided in their programs. One-third (33%, $n = 17$) offered structured didactics in palliative care. Nearly one-third (31%, $n = 16$) offered an elective clinical rotation in palliative care, while an additional 10% ($n = 5$) included a mandatory clinical rotation in this regard. Four percent of the directors who responded ($n = 2$) reported offering palliative care grand rounds or journal clubs, albeit on an inconsistent basis. Only one of the programs (2%) offered a palliative care course with a formalized curriculum and clinical experience.

Psychiatry Resident Survey

Nearly all of the 98 psychiatry residents from the 17 programs either "agreed" or "strongly agreed" (97%, $n = 95$) that psychiatrists should be trained in psychiatric aspects of palliative care. Similarly, nearly all the residents (93%, $n = 91$) "agreed" or "strongly agreed" that they were interested in learning about psychiatric aspects of palliative care. Finally, 94% of the residents ($n = 92$) "agreed" or "strongly agreed" regarding the need for a formalized curriculum to learn about palliative care. When asked to list "extremely important" topics to learn about in palliative or hospice care, the following 10 topics emerged (in rank order): (1) depression, (2) grief and bereavement, (3) communicating bad news, (4) delirium, (5) insomnia, (6) pain, (7) competence and capacity, (8) anxiety, (9) setting goals of care, and (10) adjustment disorders.

Educational Intervention Pre- and Post-Assessments

Among the 30 psychiatry residents who completed the clinical rotation, significant pre- and post-differences emerged in the residents' competence, concern, and knowledge specific to palliative care. First, the residents' competence scores increased significantly between pre- and post-testing ($z = 4.783$, $P < 0.0001$). Residents' concern about providing this type of care decreased significantly ($z = -2.278$, $P = 0.023$). Finally, the residents' knowledge of palliative care increased significantly ($z = 3.649$, $P < 0.0001$). The residents' changes in the corresponding knowledge subscales are summarized in Table 1. It was found that residents' knowledge of pain assessment, pain management, and non-pain management significantly increased after the clinical rotation. However, the psychiatry residents' knowledge regarding non-pain assessment, side-effects, and communication was not significantly different pre- and post-rotation.

The 30 psychiatry residents' pre- and post-scores in competence, concern, and knowledge were then compared with 100 family medicine and 185 internal medicine residents who completed the same clinical rotation at the same institution during the same time period (Table 2). With regard to competence, there was a significant pre-test specialty by testing time interaction ($F_{2,312} = 8.16$, $P < 0.001$), with internal medicine residents exhibiting

greater competence than family medicine residents, and family medicine residents exhibiting greater competence than psychiatry residents ($F_{2,312} = 21.65$, $P < 0.001$). Significant differences were also found in competence on post-testing with internal medicine residents still exhibiting greater competence than family medicine residents, but psychiatry residents then showing equal scores to family medicine residents at post-testing ($F_{2,312} = 13.29$, $P < 0.001$). There were no significant differences among specialties, nor any significant interactions when measuring pre-post changes in concern or knowledge. All three specialties significantly decreased their level of concern ($F_{1,312} = 32.98$, $P < 0.001$), and increased their level of knowledge before and after the clinical rotation ($F_{1,312} = 1.65$, $P < 0.001$).

DISCUSSION

Study Summary

Psychiatry Residency Program Directors relayed a paucity of opportunities for formal training in palliative care, with over one-third of programs offering no palliative care education in their programs. This finding is in sharp contrast to the responses of nearly all of the psychiatry residents who reported a strong interest in learning more about this area.

Most residents believed that psychiatrists should be trained using a specified curriculum, with importance given to topics, (some of them core to the field of psychiatry itself) such as depression, grief, communication, delirium, insomnia, pain, cognitive capacity, anxiety, goals of care, and adjustment disorders. Only one program offered a formalized clinical rotation that addressed some of these topics and targeted residents' competence, concerns, and knowledge in palliative care.

Psychiatry residents who completed a formalized clinical rotation in hospice and palliative care were found to exhibit increased competence, decreased concern, and increased knowledge. Residents also increased their ability to assess and manage patients' pain, with their non-pain management knowledge significantly increasing as well. Abilities in other areas core to psychiatry (side-effects, communication and non-pain assessment) did not significantly change.

Compared with family and internal medicine residents, the psychiatry residents demonstrated less competence initially, but exhibited an equal competence level to family medicine residents at the end of the clinical rotation. Notably, the psychiatry, family, and internal medicine residents were not significantly different with regard to their concerns or knowledge before the clinical rotation, and all three groups exhibited similarly decreased concern and increased knowledge after the rotation.

In sum, this study demonstrates that (1) US psychiatry residents are not commonly receiving training in hospice and palliative care within their educational settings, (2) US psychiatry residents are in fact interested in learning more about this area, and (3) when given the opportunity to complete a formalized hospice and palliative care rotation, US psychiatry residents gain the competence necessary, at a level equal to peers in other specialties. As a result, the formalized hospice and palliative care rotation utilized in this study could serve as a model for psychiatry resident training in other educational settings.

Limitations

Both the Program Director and psychiatry resident surveys were completed voluntarily, thus it is uncertain whether those electing to not respond were significantly different than those choosing to participate. Furthermore, the Program Directors exhibited a 33% response rate to the surveys, a rate lower than the 34%–50% response rate generally expected for online surveys.^{27–29} Additionally, it is unknown whether the amount of palliative care training has

substantially increased in residency programs since the time of data collection. For example, Sulmasy and colleagues (2008)³⁰ found “significant improvements” in the adequacy of instruction in palliative care when recently sampling graduating medical students across all disciplines. However, 21% of the medical student graduates in the aforementioned study still reported their training on death and dying was “inadequate,” and we do not know how these findings would more currently apply to psychiatry residents.

Clinical Implications and Future Directions

Hospice and palliative medicine needs well-trained psychiatrists as partners, as psychiatric issues abound in their patients. Untreated psychiatric issues are associated with significant morbidity and mortality. They can severely impact physical health and quality of life. They can also have a corrosive influence on a patients’ well-being and may interfere with patients’ capacities to make important end-of-life decisions, understand their situations, interact with their caregivers, or inhibit their ability to reach desired final goals. Attending to these psychiatric issues decreases suffering, improves outcomes, allows patients to interact with their families and friends, and engage in the last phase of their lives. This also extends to families and caregivers, and may reduce their stress and help them avoid the increased morbidity and mortality associated with care giving.^{12,31–33}

Hospice and palliative medicine is the newest medical subspecialty, with 10 sponsoring boards, including psychiatry. Psychiatrists want and will benefit from training in this area, and have been shown to directly benefit from the formalized hospice and palliative care rotation described in this study. Future studies of a more comprehensive trial of this training model in representative psychiatry training programs are needed. Hospice and palliative medicine can benefit from welcoming psychiatrists as trainees, as they can be helpful in developing this field and helping it to ultimately fulfill its mission of relieving suffering and improving quality of life throughout the illness and bereavement experience.

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TABLE 1

Changes in Psychiatry Residents' Competence, Concern, and Knowledge with Inclusion of Knowledge Subscale Changes Measured Before and After a Clinical Rotation in Hospice and Palliative Care

	<u>Pre-training</u>		<u>Post-training</u>	
	Mean	SEM	Mean	SEM
Competence *	2.32	0.10	3.45	0.11
Concern *	1.80	0.14	1.61	0.11
Knowledge *	22.76	0.91	25.70	0.64
Pain assessment *	2.10	0.12	2.45	0.10
Pain management *	5.56	0.30	6.15	0.31
Non-pain assessment	1.63	0.13	1.80	0.13
Non-pain management *	3.26	0.19	3.83	0.14
Side effects	1.56	0.14	1.62	0.14
Communication	2.90	0.15	3.10	0.12

* Significant at $P < 0.05$.

TABLE 2

Contrasts on Weissman Exam Scales of Competence, Concern, and Knowledge among Psychiatry, Family Medicine, and Internal Medicine Residents when Measured Before and After a Clinical Rotation in Hospice and Palliative Care

	Competence			Concern			Knowledge		
	Pre [*]		SEM	Post ^{**}		SEM	Pre		SEM
	Mean	SEM		Mean	SEM		Mean	SEM	
Psychiatry	2.32	0.10	0.11	3.45	0.11	0.15	1.80	0.15	0.11
Family Medicine	2.69	0.08	0.05	3.54	0.05	0.08	1.90	0.08	0.05
Internal Medicine	3.12	0.05	0.04	3.72	0.04	0.06	1.84	0.06	0.05

Simple effects = Internal Medicine residents > Family Medicine residents > Psychiatry residents regarding competence scores at pre-test.

Simple effects = Internal Medicine residents > Family Medicine residents = Psychiatry residents regarding competence scores at post-test.

Note: All three specialties significantly decreased their level of concern ($F_{1,312} = 32.98$, $P < 0.001$), and increased their level of knowledge before and after the clinical rotation ($F_{1,312} = 1.65$, $P < 0.001$).

* Significant interaction demonstrated at pre-test ($F_{2, 312} = 8.16$, $P < 0.001$).

** Significant interaction demonstrated at post-test ($F_{2, 312} = 13.29$, $P < 0.001$).