Patient Education and Counseling xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Healthcare Education

"Conversational Advice": A mixed-methods analysis of medical residents' experiences co-managing primary care patients with behavioral health providers

Patrick Hemming[a,*], R.B. Levine[b], Joseph J. Gallo[c]

[a] Department of Medicine, Division of General Internal Medicine, Duke University School of Medicine, Durham, NC, USA
[b] Division of General Internal Medicine, Johns Hopkins School of Medicine, Baltimore, MD, USA
[c] Department of Mental Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA

ARTICLE INFO

Article history:
Received 13 March 2017
Received in revised form 11 July 2017
Accepted 12 July 2017

Keywords:
Behavioral medicine
Primary care
Graduate medical education
Mental health services
Patient care team
Cooperative behavior

ABSTRACT

Objective: When integrated behavioral health clinicians (IBHCs) and residents co-manage patients, residents may learn new approaches. We aimed to understand the effect of co-management on residents' behavioral health (BH) management learning.
Methods: Residents completed a web-based survey enquiring: whether co-management included a shared visit and/or face-to-face meeting with an IBHC, whether residents received feedback from the IBHC, and what they learned. Qualitative responses were coded thematically using a constant comparative method.
Results: Among 117 respondents (overall response rate 72%, 117/163), from five residencies recruited from **40 residencies with BH integration,** residents were significantly more likely to receive feedback if they had a shared visit with the patient and an IBHC (yes 69% vs. no 33%; adjusted OR 3.0, 95% CI 1.2–7.6). Residents reported three major learning themes: interpersonal communication skills awareness, BH skills awareness, and newly adopted attitudes toward BH. Residents who received feedback were more likely to report themes of interpersonal communication skills awareness (yes 26.6% vs. no 9.4%).
Conclusion: BH integration **promotes increased feedback for** residents **practicing** face-to-face co-management with IBHCs, and a positive influence regarding residents' attitudes and perceived skills.
Practical implications: Residency programs can meaningfully improve residents' learning by promoting face-to-face co-management with IBHCs.

1. Introduction

Integrated behavioral health clinicians (IBHCs)—professionals trained in clinical counseling for behavioral health (BH) conditions such as mental health and substance abuse disorders—provide services in many primary care practices. To expand access for patients with BH conditions and improve patient outcomes, health systems are increasingly turning to IBHCs [1,2]. Residency programs that train future primary care physicians also utilize IBHCs to teach residents how to understand and better treat patients with BH conditions.

Research suggests that teaching by IBHCs positively impacts the learning experience of residents, particularly when done in the context of actual patient care [3,4]. In many family medicine (FM) residencies, BH clinicians whose role was previously more limited to supervising BH curricula [5] are now integrated, delivering care alongside residents [6]. Internal medicine (IM) residencies that formerly had no distinct BH curriculum now have IBHCs working in their clinics [7]. For both FM and IM residency programs, program directors can benefit from understanding what occurs when IBHCs co-manage patients with residents and what types of learning are perceived by the latter. For example, feedback and clinical coaching based on direct observation may promote improved performance in learners [8]. Previous published studies lack sufficient evaluation of residents' educational experiences to provide a clear understanding of how IBHCs' work affects residency education [4,6,9–13]. Understanding how residents and IBHCs interact remains a critical task since clinical collaboration with allied health professions shapes the content and experience of residents' learning and may provide them with clinical role-models [14].

This study aimed to elucidate what types of interactions residents are having with IBHCs during co-management

* Corresponding author at: Duke University, 4220 N Roxboro Rd, Durham, NC 27704, USA.
E-mail address: patrick.hemming@duke.edu (P. Hemming).

http://dx.doi.org/10.1016/j.pec.2017.07.014
0738-3991/

experiences. Do they communicate face-to-face, electronically, or merely review each other's notes? We also wished to know in residents' own words what they learned from the co-management experience. By asking a combination of closed- and open-ended survey questions [15], we sought to assess the association between types of co-management interactions and the following outcomes: (1) whether residents received feedback on patient management, (2) residents' perceptions of patient benefit from co-managing, and (3) common learning themes. To examine these questions, we surveyed residents from FM and IM residencies with existing IBHC involvement in their primary care continuity clinics. We hypothesized that higher degrees of face-to-face co-management would be associated with increased receipt of feedback and a greater range of learning themes.

2. Methods

2.1. Study setting and participants

For this cross-sectional survey, we recruited participants from residency training programs via the American Academy of Family Physicians Collaborative Care Research Network and the Society of General Internal Medicine Mental Health Interest Group. Initially, we contacted representatives from more than 40 residency programs within the two networks. For the five programs that responded and agreed to participate, a researcher (PH) scheduled a 30-min discussion with an IBHC or program director to understand the program's approach to IBHCs within the primary care practice. We then directly contacted **163** residents from these five programs via email to invite participation in the survey via an embedded link. The recruitment process and survey instrument were reviewed and approved by an institutional review board at Johns Hopkins University.

Only residents providing continuity primary care who reported at least one co-managed patient during their residency were included in this study. We collected surveys at one institution in May 2014 and at four other institutions between August 2014 and June 2015. To encourage participation, survey respondents were entered into a drawing for a gift card. If residents did not respond to the initial invitation, we contacted them up to three other times by email as reminders.

2.2. Survey instrument

We developed survey questions (both closed- and open-ended) through a consensus process with study authors. After piloting questions with resident and faculty volunteers to test clarity and time needed to complete the survey, we refined them for meaningful responses. Residents were asked about their most recent patient encounter that was co-managed with an IBHC. If this encounter was atypical, they were asked to report their last typical encounter. Close-ended questions included the following: how recent the encounter was (e.g., in the last week), what condition or conditions were addressed with the patient (e.g., depression, medication non-adherence), what types of interactions were had with the IBHC (e.g., shared appointment, email exchange), and whether the resident received feedback from the IBHC. Residents were also asked to answer the following question with a rating from 0 (highly negative) to 10 (highly positive): "For this patient, what do you think was the impact of having access to an [integrated] BH approach?" (This numerical scale has been used in other social and behavioral research to measure subjective phenomena [16].) Finally, residents were asked the following

Table 1
Participant demographics (N = 113) and characteristics of index co-management visit according to treatment intensity.

	No shared appt, No F2F meeting (N = 21)	No shared appt, Yes F2F meeting (N = 30)	Yes shared appt, No F2F meeting (N = 21)	Yes shared appt, Yes F2F meeting (N = 41)
Demographics				
Specialty				
Family medicine	19.0% (4)	36.7% (11)	66.7% (14)	75.6% (31)
Internal medicine	81.0% (17)	73.3% (19)	33.3% (7)	24.4% (10)
Age <30 yrs	71.4% (15)	63.3% (19)	71.4% (15)	73.1% (30)
Race (non-white)	38.1% (8)	33.3% (10)	47.7% (10)	41.5% (17)
Sex				
Female	90.5% (19)	53.3% (16)	71.4% (15)	60.1% (25)
Male	8.8% (2)	46.7% (14)	28.6% (6)	39.9% (16)
Year of residency				
1	52.3% (11)	46.7% (14)	23.8% (5)	39.0% (16)
2	14.3% (3)	26.7% (8)	42.9% (9)	39.0% (16)
3	33.3% (7)	26.7% (8)	33.3% (7)	22.0% (9)
Last co-managed visit				
1 week	19.0% (4)	26.7% (8)	19% (4)	46.4% (19)
1–4 weeks	42.9% (9)	30.0% (9)	47.6% (10)	39.0% (16)
>4 weeks	38.1% (8)	42.2% (13)	33.3% (7)	14.6% (6)
Behavioral health condition addressed				
Depression	47.6% (20)	60.0% (18)	52.3% (11)	85.4% (35)
Anxiety	33.3% (7)	60.0% (18)	52.3% (11)	65.6% (27)
Substance abuse	14.3% (3)	20.0% (6)	33.3% (7)	17.1% (7)
Professional training of integrated behavioral health clinician				
Psychologist	25.6% (6)	43.3% (13)	62.0% (13)	41.5% (17)
MD/NP	23.8% (5)	26.7% (8)	19.0% (4)	17.1% (7)
Other	47.6% (10)	30% (9)	19.0% (4)	41.5% (17)

Appt = appointment; F2F = face-to-face; MD = physician (psychiatrist or generalist); NP = nurse practitioner.
Other professional trainings included marriage & family therapist, licensed clinical social worker, nurse care manager.

Please cite this article in press as: P. Hemming, et al., "Conversational Advice": A mixed-methods analysis of medical residents' experiences co-managing primary care patients with behavioral health providers, Patient Educ Couns (2017), http://dx.doi.org/10.1016/j.pec.2017.07.014