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Barriers to referral for elevated blood pressure in the emergency department and differences between provider-type

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Abstract

A multidisciplinary sample of ED providers across the United States ($n = 450$) were surveyed to identify barriers to referral for elevated blood pressure (BP) in the ED and differences between provider-type. RNs reported less knowledge of Stage I HTN ($p = .043$) and Pre-HTN ($p < .01$); were less aware of definitions for HTN ($p < .001$); reported more difficulty caring for patients who are asymptomatic ($p = .007$); required financial compensation to refer ($p = .048$); and perceived BP referrals are influenced by the medical director ($p < .001$). MDs reported more skills to refer ($p = .008$) and time as a barrier ($p = .038$); PAs were more likely to report patients are not aware of health benefits ($p = .035$) and doubted their concern for their BP ($p = .023$); and felt emotionally uncomfortable when referring ($p = .025$). Despite these differences, there was no significant difference between provider-type and referral.

Introduction

Implementation of emergency-based guidelines is an established principle of health care, especially when they address areas of high priority. Referral for asymptomatic hypertension (HTN) is one such condition. In 2006, The American College of Emergency Physicians (ACEP) published a guideline which recommends referral for all adult patients who have at least two blood pressure (BP) readings $\geq 140/90$ mmHg during their ED visit.¹ However, implementing this guideline appears to be problematic because studies have found only 7%-25%²³⁴⁵ of patients are referred and little data exist to understand why.

Failing to recognize and address HTN in the ED may represent a missed opportunity to prevent the progression of having undiagnosed or under-treated HTN.¹ Multi-disciplinary collaboration is necessary to provide optimal care for patients treated in the ED. From the

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standpoint of future research and policy, understanding disciplinary-specific perspectives regarding referral for elevated BP is crucial prior to the implementation of any multi-disciplinary intervention that would aim to improve referral for asymptomatic HTN.

Materials and Methods

Cabana and colleagues⁶ identified that specific barriers - knowledge, attitudes, and external factors influence provider practice patterns. This cross-sectional survey examined self-reported barriers (knowledge, attitudes, and external factors) to referral for elevated BP in the ED and differences between provider-type. After IRB approval, data collection began using a multi-disciplinary and random sample of active members from three professional organizations in the United States – the American Medical Association (AMA), the Society of Emergency Physician Assistants (SEMPA), and the Emergency Nurses Association (ENA).

First the questionnaire was pilot tested using a sample of ED providers not included in the study sample. Participants were given the option to complete the survey using a hard-copy or by completing and submitting it electronically via a SurveyMonkey® link. Three contacts were made (pre-notice post card, letter for survey participation, and reminder letter); a prepaid financial incentive of \$10.00, and a stamped return envelope for those wishing to complete the survey by hand was provided. One hundred fifty members from each group were randomly selected from each list provided by the professional organization and asked to participate in the survey (N = 450).

Sample Size Calculation

This study examined self-reported barriers to referral and differences between provider-type. A sample size was calculated based on the primary aim of the study, not presented here which examined self-reported barriers associated with referral. Previous studies that examined self-reported barriers to guideline adherence measure adherence as following the guideline 'at least 75% of the time'.^{7,8,9,10} Previous studies have also indicated that referral rates based on retrospective chart review are as low as 10% - 20% following a repeated systolic BP \geq 140 mmHg or diastolic BP \geq 90 mmHg in the ED.³ Sample size calculation was performed to examine the differences between referral rates (\geq 75% of the time versus $<$ 75% of the time) of those with and without a potential barrier to referral, with type 1 and 2 error rates of 5% and 20% respectively. To be conservative and prepare for an inconsistent pattern of barriers among each of the provider groups a sample of 450 would be sufficient to detect .1 versus at least .19 in those with and without a barrier, respectively, and an OR = 2.16. With a 50% response rate, the total sample would be sufficient to detect differences of .1 versus at least .24 and an OR of 2.83.

Measures

Multifaceted interventions built upon a careful assessment of barriers to guideline implementation may be more effective than those that are not. Keeping this in mind, it was important to use a measure that examined a multitude of barriers. However, this proved to be a challenge, as no validated instrument was found that specifically examines the ED

provider and/or ED provider barriers to referral for elevated BP. Based on the conceptual framework of Cabana et al. (1999)⁶ that guided this study, knowledge, attitudes, and external factors were examined. A knowledge survey was developed by the first author and based on the literature,¹¹ Attitudes and external factors were assessed using a validated instrument (described below) that had the ability to examine the guideline of interest¹². However, additional items were added to this survey to assure a comprehensive examination of barriers, which have not been formally developed into a survey, although based on Delphi Study.¹³

Knowledge (24-items)—First, knowledge was assessed in three parts. In Part I, 12-items were constructed to assess knowledge of *The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure*¹⁴(JNC 7) definitions of H

For Part II of the knowledge assessment, two close-ended questions (13, 14) about *awareness* of the JNC 7 and ACEP recommendations were asked, with answer choices as ‘yes’, ‘no’, or ‘I do not know’; and two close-ended multiple choice questions (15, 16) about the extent of *familiarity* with JNC 7 and ACEP questions, with answer choices and scoring as: ‘not at all familiar’ as score 1, ‘somewhat familiar’ as score 2, ‘neutral’ as score 3, ‘familiar’ as score 4, ‘very familiar’ as score 5. For awareness, answers were dichotomized to percentage of ‘yes’ and percentage of ‘no’ plus ‘I do not know’.

Part III of the knowledge assessment was based on the literature.⁷ Providers were asked to: “Please rate, on a scale of 1-10, how common you think each cause is to affect BP in the emergency department patient (1 = not a common cause and 10 = a very common cause).⁷ Responses included pain, uncontrolled and diagnosed HTN, undiagnosed HTN, anxiety, improper BP cuff fit, inaccurate reading, or other (please specify). Percentage of each perceived cause of elevated BP response was calculated.

Attitudes/External Factors (50-items)—The ‘Barriers and Facilitators to Assessment Instrument’ (BFAI)¹² (25-items) was used to assess attitudes (10-items) and external-related barriers (15-items) [patient factors (6-items); guideline factors (4-items); and organizational factors (5-items)]. Twenty-five of the 27 items were used for this study. Two items were removed because they were irrelevant and this was recommended by the authors of the instrument. The first part of the instrument consisted of rating various possible barriers to, and facilitators of, the general implementation of a ‘directive or innovation’. The second part of instrument consisted of identification of barriers to and facilitators of, implementation of a preventive care in general. As recommended by the authors of the tool, questions were reworded to address the specific guideline being employed in the study, specifically, the words ‘directive or innovation’ in the original questionnaire were replaced with the words “ACEP Guideline”. Item response and range have been measured by the developers of the instrument and 12 validation studies have been performed to test the psychometric characteristics of the questionnaire⁹. Psychometric tests during the development of the questionnaire include (between brackets the criteria): 1) response (60%) and item-response (90%), 2) percentage (fully) (dis-)agree (10% and 90%), and 3) inter quartile range (1). If an item did not meet two or more criteria, then it was not included in the questionnaire. Cronbach's alpha were not available at the time of the study.

In a systematic review and Delphi study,¹³ 50 potentially relevant determinants of innovation processes were identified after the release of the ‘Barriers and Facilitators Assessment Instrument’¹² that have not been developed into an instrument and 25 of the 50-items developed are not included in the validated ‘Barriers and Facilitators to Assessment Instrument’¹² In order to assure that there was a comprehensive examination of all possible determinants that may influence guideline adherence (referral) these items that were developed from this study¹³ were added to the proposed survey (knowledge assessment plus BFAI), for exploration. These items were analyzed and are presented separately (25-items).

Items for both questionnaires were grouped into four categories: (1) guideline characteristics (2 items), (2) provider characteristics (10 items), (3) patient characteristics (6 items), and (4) organizational characteristics (5 items). Each category was then combined to form one composite score for analysis. Each category was analyzed as a composite score. However, each item was analyzed individually if significant differences between provider-type and composite score were not found. For both questionnaires, respondents were asked to respond using a 5-point Likert-type scale, ranging from ‘fully agree’, which corresponds to a score of five, to ‘fully disagree’, which corresponds to a score of one. A binary choice design was chosen. For those who responded as ‘fully agree’, ‘agree’, or ‘do not agree nor disagree’, the new response was coded as being a ‘barrier’. For those who responded as ‘fully disagree’ or ‘disagree’, the new response was coded as ‘not a barrier’. Providers who responded as ‘do not agree nor disagree’ was coded as a barrier because having no opinion was considered to be a barrier to referral for elevated BP.

Outcome – Referral (1-item)—Providers were asked: “In the past two weeks, how often did you specifically refer an ED patient for outpatient BP evaluation if he/she had a repeated systolic BP measurement ≥ 140 mmHg or diastolic BP ≥ 90 mmHg in the ED”? Response categories included “never” (0% of the time), “rarely” (1%-20%), “sometimes” (21%-50% of the time), “most of the time” (51%-75% of the time) and “almost always” (>75% of the time). Based on previous studies that have examined barriers to guideline adherence, referral was dichotomized to those who refer $\geq 75\%$ of the time and those who refer $< 75\%$ of the time.⁶¹⁷¹⁸¹⁹

Demographics (10-items)—Provider demographic questions included: provider type (1), total years in any ED setting (2), sex (3), race/ethnicity of the provider (4), work and shift status (5, 6). Hospital demographic questions included number of each provider type (MD, PA, NP, RN) working per shift (7), use of electronic medical records (EMR) in the ED for patient progress note documentation (8), use of EMR for MD/NP/PA order entry (9), and presence of current protocol to address patients who have asymptomatic HTN in the ED (10).

Data Analysis

Data from Survey Monkey® were directly imported into SPSS. All returned hand-written surveys were double entered into an SPSS dataset. Data were analyzed with the Statistical Program for the Social Sciences (SPSS version 15.0, Chicago Illinois, USA). Descriptive

statistics are presented in percentages. Bivariate analyses were conducted using independent t-tests or ANOVA and chi square tests to test for significant relationships between the independent variables and the dependent variable.

Results

Characteristics of study subjects

This study achieved a 51% response rate (N = 230). Sixty-two percent were RNs [10% who were Nurse Practitioners (n = 9)], 55% were PAs (n = 85), and 35% were MDs [65% Attending MDs (n = 35) and 35% were Resident MDs (n = 15)]. Responders were more likely to be a RN (n = 91; 39.6%) as compared to MDs (23.5%) or PAs (37%) ($p = .020$). Responders (40.8% male) and non-responders (46.3% male) did not differ significantly by sex ($p = .136$). However, responders were more likely to live in the Northeast and least likely to come from the West ($p < .001$). A large proportion (87.0%) of the total sample was Non-Hispanic White. No other provider demographics were available from any of the professional groups that would determine if there were differences between responders and non-responders.

In terms of hospital demographics, most of the ED providers had 10 or more years of ED experience, worked full-time (83.7%), and on the day shift (35%). The majority of providers (77.0%) worked in EDs where electronic medical records (EMR) were used for order entry and progress note documentation. However, only 15.0% of all ED providers worked in an ED where there was a policy in effect to address patients who present with asymptomatic HTN.

Referral

One third of providers (n = 68; 29.8%) referred to be evaluated sometimes ('21%-50% of the time'), followed by rarely ('10%-20% of the time') (n = 52; 22.8%). Registered Nurses (30.8%) were more likely to refer rarely or '10%-20%' of the time compared to MDs (27.8%) and PAs (38.6%) who were more likely to refer sometimes' or '21%-50% of the time'. A greater proportion of MDs (20.4%) were more likely to refer 75% of the time, followed by PAs (12.2%) and RNs (7.7%); however, MDs did not refer at significantly higher rates than RNs ($p = .073$) or PAs ($p = .413$).

No significant differences were found between provider-type and knowledge, attitudes, and external factors as a composite score. Individual items were therefore examined separately and each item showing significant differences between individual item and provider-type are presented.

Knowledge—As shown in Table 2, few differences were found between knowledge and provider-type.

Part I: As shown in Part I of the knowledge assessment in Table 2, RNs (65%) were least likely to correctly define pre-HTN compared to MDs (93%) and PAs (83%) ($p < .01$) and least likely to define the level for stage I HTN (74%) compared to MDs (85%) and PAs (88%) ($p = .043$). As a whole, the majority of providers (51%) incorrectly defined stage II

HTN as 160-169/90-99; however this was followed by the correct definition as 160/90 mmHg (35%), not shown in this table.

In addition, RNs (59%) were least likely to identify the correct action for *referral* of an elevated SBP per the ACEP Policy, compared to MDs (89%) and PAs (72%) ($p < .01$), but no difference was found for DBP ($p = .121$). When asked to report their BP threshold for which they reassess/refer, similar results were found. Registered Nurses (20%) were least likely to report the correct SBP threshold for referral of an elevated SBP, with a similar proportion of PAs (31%) and MDs (30%) reporting the correct threshold. No other differences were found for reporting BP threshold.

Part II - ACEP/JNC 7 awareness/familiarity: About half of MDs and the majority of the PAs were aware of the JNC 7 guidelines, while RNs were least likely to be aware ($p < .001$). The majority of providers who were aware were somewhat familiar with it. In terms of the ACEP Policy, MDs and PAs were more likely to be aware of it, while RNs were least likely to be aware ($p < .001$). The majority of providers who were aware of the ACEP Policy were somewhat familiar with it.

Part III – Perceived Causes of Elevated BP: No differences were found between provider-type and perceived cause of elevated BP.

Attitudes and External Factors: Table 3 shows significant differences between provider-type and self-reported barriers [provider attitudes, and external factors (patient, guideline, and organizational factors) for the BAFI and additional items].

Provider Factors (BFAI): A significantly larger proportion of MDs (74.1%) and PAs (56.5%) wanted to know more about the ACEP Policy prior to applying it, with RNs being least likely to report this as a barrier (42.9%) ($p = .001$). A large proportion (87%) of ED providers did not report lack of training was a barrier to providing preventive care. However, MDs (27.8%) were more likely to report they did not have the training, compared to PAs (7.1%) and RNs (9.9%) ($p = .001$).

Additional Provider Factors: On average, ED providers perceived they had the skills (96.1%) knowledge (97.4%), and confidence (91.7%) to refer patients in the ED with elevated BP, and did not report this as a barrier. Physicians (100%) were more likely to report they had the skills needed for BP referrals, compared to PAs (98.8%) and RNs (91.2%) ($p = .008$).

Patient Factors (BFAI): Difficulty providing preventive care to those who seem healthy was not a barrier for the majority of ED providers (78.7%). However, RNs (30.8%) were more likely to report difficulty providing care to those who seemed healthy, compared to PAs (18.3%) and MDs (9.3%) ($p = .007$).

Additional Patient Factors: The majority of providers reported that patients were not aware of the health benefits of having their BP re-evaluated, with PAs (82.4%) being more likely to report this as a barrier compared to MDs (63%) and RNs (71.4%) ($p = .035$). In addition,

PAs were more likely to report (26.8%) patients doubted their concern for their BP when referred, compared to MDs (9.3%) and RNs (15.4%) ($p = .023$), even though the majority of providers did not report this as a barrier. A significantly greater proportion of PAs (25.9%) compared to RNs (18.7%) and MDs (7.4%) reported that referring patients for BP re-evaluation caused them to feel emotionally or physically uncomfortable, even though the majority of providers did not report this as a barrier ($p = .025$).

Guideline Factors (BFAI): Although very few ED providers (7.4%) reported working according to the ACEP Policy would be too time consuming, a significantly greater proportion of MDs (13%) compared to PAs (9.4%) and RNs (2.2%) reported that time would be a barrier ($p = .038$.)

Additional Guideline Factors: One item was used to examine additional guideline characteristics, however no significant differences between provider-type were found.

Organizational Factors (BFAI): Although the majority of ED providers (75.7%) reported financial compensation was not needed for BP referrals, RNs (33.3%) was more likely to report they required financial compensation, compared to PAs (18.8%) and MDs (18.5%) ($p = .048$)

Additional Organizational Factors: About half (52.8%) of providers reported BP referrals has not been formalized through a decision making process and the other half (47.8%) reported that it has. MDs were more likely to report this as a barrier ($p = .004$). Registered Nurses (71.4%) were more likely to report that referral is influenced by the opinion of the medical director, compared to MDs (31.5%) and PAs (31.8%) who reported the opposite ($p < .001$).

Discussion

This was the first study to document provider-differences of self-reported barriers to referral for elevated BP in the ED among a multi-disciplinary and random sample of ED providers who belong to one of three professional ED organizations (AMA, SEMPA, or ENA) across the U.S. This study achieved a 51% response rate. Together with previous studies, this suggests that “response bias may not seriously affect these findings when perhaps more than a 50% response rate is achieved”.²⁰ However, only 36% of physicians responded to the survey. Responses by physicians differed in this study when compared to some studies also examining barriers to guideline or protocol adherence among ED providers. Only one study was found to specifically examine barriers to HTN screening and intervention among a multi-disciplinary sample of ED providers. In that study, Tanabe et al. (2011) found a greater proportion of physicians (76% for Attending physicians and 88% of Resident physicians) responded to their study, compared to the results found in this current study. Tanabe's et al. (2011) study was conducted at the work-site, (five EDs) therefore decreasing the burden and time it would take to complete a mail-survey and return it. In contrast however, a recent study examining barriers to implementation of a protocol for early detection and management of sepsis found that only 38% of physicians ($n = 16$ of 57) responded to their 13-item questionnaire also administered at the work site (one ED).²¹ To

increase the trustworthiness of these results, this study used recommendations to limit non-response bias²² a popular and ‘research-driven’ conceptual framework, a multi-modal method, reminder letters, and a modest financial incentive (\$10.00).¹⁹ However, in this current study only a 36% response rate among physicians was achieved. While this response rate was low may not best represent ED physicians, evidence suggests that response rates for mailed surveys to physicians have declined over the past decade²³ One reason for the decline in response rate over time is due to the increasing demand to participate in research activities²² and lack of time, ‘perceived salience’, in which the value of the study is perceived to be low, or that there is concern about the confidentiality of the results; and the individual questions appear biased.²⁴

This study found few differences between provider-type in terms of accurately defining HTN and the ACEP recommendations. Registered Nurses were least likely to correctly define Pre-HTN and Stage I HTN and a few reasons may be postulated. First, pre-hypertension is a new classification introduced by the JNC 7. This designation was made due to the increasing amount of data associating adverse CV outcomes with what had previously been considered normal BP readings;^{5,25} however knowledge translation of this may be poor. It may also be that even though all disciplines learn *what* HTN is during training, continuing education of this may not be similar between disciplines.

Furthermore, this study found a greater proportion of MDs and PAs reported they refer at least 75% of the time compared to RNs. One explanation for this may be because BP reassessments are thought of as a task usually done by the RN rather than the physician (or mid-level provider); and conversely, referrals are often thought of as a task usually done by the physician (or mid-level provider), not the RN. However, given the simplicity of screening and referral procedures and its potential benefit, it would be imprudent to say that it is one person's job over the other.

In 2006, the ACEP published a clinical guideline recommending referral for all adult patients who have persistent asymptomatic HTN during their ED visit; however RNs had more difficulty performing preventive care to patients who were asymptomatic compared to MDs and PAs. Since HTN rarely produces clinical symptoms, interventions to address this barrier may be necessary, geared especially toward nurses since they referred the least and it is they who often do the discharge teaching.⁷ Interestingly, PAs were more likely to report referring patients to have their BP evaluated caused them to feel emotionally or physically uncomfortable. These findings are unclear since health promotion and disease prevention is often ‘priority for all Physician Assistants in daily practice.’²⁶

Nonetheless, current clinical guidelines call for a multi-disciplinary approach, such that all providers including nurses are encouraged to participate in HTN management.^{5, 27} Furthermore, while this guideline is ‘intended for physicians,’¹ it is not unexpected that MDs were more likely to be aware of the policy when compared to PAs and RNs. However, given the significant impact *all* clinicians can have on patients who have elevated BP and are referred, it is recommended that this policy be widely disseminated into EDs across the US and across disciplines.

The majority of studies that have examined barriers to guideline adherence have been conducted in primary care and have found that time is a common barrier to adherence to guidelines. Similarly, studies conducted in the ED have also found time to be perceived as a barrier to implementing referrals for post-injury patients,²⁸ performing universal HIV screening,²⁹ substance abuse,³⁰ and mandatory domestic violence screening in the ED.³¹ Tanabe et al.⁶ found time to be a moderately important barrier to reassessing BP; however, time was not reported as a major barrier to reassessment/referral of patients with elevated BP for most providers in this study. Nevertheless, given the fast-paced nature of the ED environment, time may always be an underlying issue and may be one challenge to overcome, especially for physicians, in order to adhere to the recommendations by the ACEP.¹²² According to Levy et al.,³² one way to overcome the ‘time’ issue is to experiment with “programmatically efficiencies, such as protocols and order-sets...” that ...can offset competing priorities in the ED and combat clinical inertia.”

Studies examining barriers to guideline adherence, but not in the ED setting, have found that provider-reminder systems, local opinion leaders, computer decision-support systems, and financial incentives are some strategies to successfully implement research findings.^{18 33} Given the fact that nurses were more likely to report they required financial reimbursement for the referral of patients' highlights that this may be a strong incentive for successful guideline implementation and may be one way to improve performance.³⁴ Similar findings were found by Haagan et al.³⁵ however in physicians. They found that 57% of physicians reported that they required financial compensation for adhering to a fertility guideline. In a qualitative study conducted by Yakasaki and Komatsu²³ nurses reported that “administrators would implement guidelines if costs were reimbursed” and that “if...work specified by the guidelines is reimbursed, we will get serious about the guidelines”.

Limitations

The results of this study must be interpreted in light of limitations regarding availability of measures and response rate, especially of MDs. This study collected information by self-report and providers may have reported ‘socially acceptable’ responses when completing the questionnaire, which may result in under-reporting of barrier. Furthermore, a 36% response rate from physicians limits the ability to generalize. Nevertheless, this study has considerable strengths. Although we report cross-sectional data, and despite obtaining only a 51% response rate, this was the first study that attempted to use a random, multi-disciplinary sample of ED providers across the U.S. The information obtained from this approach may serve as a basis for the successful implementation of multi-disciplinary interventions that address referral for elevated BP in the ED.

Conclusion

Given the adverse effects of asymptomatic HTN and the simplicity of intervening when a patient has elevated BP, a guideline was published in 2006 by the ACEP that recommend all adults with persistent HTN be referred for evaluation; however provider adherence is poor. To understand why, this study examined differences between provider-type and self-reported barriers to referral. We found that providers differ significantly in terms of

knowledge, attitudes, and external factors, but not for referral. Therefore, recommendations are multifaceted and any multi-disciplinary intervention to improve referral rates should address issues that may be disciplinary specific because all ED healthcare providers have potential to reduce the adverse outcomes due to elevated BP.

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Table 1

Referral and differences between provider-type

	ED Provider Group			Total N (%)	p
	MD N (%)	PA N (%)	RN N (%)		
Referral					.022
0% ¹	9 (17%)	8 (9%)	21 (3%)	38 (10%)	
10%-20% ²	7 (13%)	17 (21%)	28(31%)	52 (22%)	
21%-50% ³	15 (28%)	32 (39%)	21 (23%)	68(30%)	
51%-75% ⁴	12 (22%)	16 (19%)	14 (5%)	42 (15%)	
75% of the time ⁵	11 (20%)	10 (12%)	7 (8%)	28 (13%)	

Note:

¹ Never;

² Rarely;

³ Sometimes;

⁴ Most of the Time;

⁵ Almost Always

	ED Provider Group			
	MD N (%)	PA N (%)	RN N (%)	p-value
Pain	8.0(±2.2)	8.0(±2.0)	8.3(±2.0)	p = .509
Undx HTN ¹	7.0(±2.0)	6.9 (±2.0)	6.7(±2.4)	p =.878
Uncont HTN ²	7.5(±1.9)	7.0 (±2.1)	7.8(±2.2)	p =.052
Anxiety	6.8(±2.2)	6.9(±1.9)	7.6(±2.2)	p =.044
Inaccurate reading	5.1(±2.3)	4.9(±2.3)	5.0(±2.2)	p =.824
Inaccurate size ³	5.3(±2.1)	5.3(±2.2)	5.9(±2.4)	p =.246

Note:

¹ Undiagnosed Hypertension;

² Uncontrolled Diagnosed Hypertension;

³ Inaccurate BP Cuff Size.

Table III
Self-reported Attitudes and external factors and differences between provider-type

	MD N (%)	PA N (%)	RN N (%)	<i>p-value</i>
<u>Provider Attitudes - BFAI</u>				
Knowledge, Motivation				
Barrier	40 (74.1%)	48 (56.5%)	39 (42.9%)	<i>p</i> = .001
Training/Education				
Barrier	15 (27.8%)	6 (7.1%)	9 (9.9%)	<i>p</i> = .001
<u>Provider Attitudes-Additional</u>				
Skills Needed				
Barrier	0 (0.0%)	1 (1.2%)	58 (8.8%)	<i>p</i> = .008
<u>Patient Factors – BFAI</u>				
Seem Healthy/Asymptomatic				
Barrier	5 (9.3%)	16 (18.8%)	28 (30.8%)	<i>p</i> = .007
<u>Patient Factors-Additional Items</u>				
Patient Awareness				
Barrier	34 (63.0%)	70 (82.4%)	65 (71.4%)	<i>p</i> = .035
Patient Doubt				
Barrier	34 (63.0%)	70 (82.4%)	65 (71.4%)	<i>p</i> = .023
Causing Discomfort				
Barrier	4 (7.4%)	22 (25.9%)	17 (18.7%)	<i>p</i> = .025
<u>Guideline Factors - BFAI</u>				
Time Investment				
Barrier	7 (13.0%)	8 (9.4%)	2 (2.2%)	<i>p</i> = .038
<u>Organizational Factors - BFAI</u>				
Reimbursement, Insurance System				
Barrier	10 (18.5%)	16 (18.8%)	30 (33.3%)	<i>p</i> = .048
<u>Organizational Factors-Additional Items</u>				
Formalized ACEP Policy				
Barrier	36 (66.7%)	48 (65.6%)	36 (39.6%)	<i>p</i> = .004
Medical Director Influence				
Barrier	17 (31.5%)	27 (31.8%)	65 (71.4%)	<i>p</i> < .001