Lessons Learned in Teaching Battlefield (Ear) Acupuncture to Emergency Medicine Clinicians

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ABSTRACT

Background: Acupuncture, in general, is being proclaimed as an alternative analgesic amid the opioid crisis, and along with this, within emergency departments (EDs) there is a specific interest in a form of ear acupuncture called Battlefield Acupuncture (BFA). It is expected that BFA will be used more widely in emergency medicine as it is easy to learn and can be applied both promptly and easily. Teaching programs will be required to sustain this increased demand and upskill emergency clinicians in this skill.

Objectives: This article provides experiences and recommendations, based on faculty experiences from teaching BFA in Australia to ED clinicians combined with formal participant feedback.

Main Points: BFA courses were adjusted to suit ED doctors and nurses, along with their unique case mix and associated challenging environment. The content of the BFA courses included evidence, pain indications, contraindications, application, safety, mechanism of action, and how to negotiate barriers of credentialing. Workshops used the latest and most effective teaching methods that encompassed problem-based learning, infotainment, simulation, “four stage skills teaching,” and “teaching on the run.”

Conclusion: It is hoped that the experiences gained, and lessons learned in educating this new frontier of BFA to emergency clinicians will assist others in teaching BFA and its related techniques as a viable analgesic alternative in emergency medicine.

Keywords: teaching, auriculotherapy, battlefield acupuncture, emergency medicine, ear acupuncture, pain management

BACKGROUND

ACUPUNCTURE, IN GENERAL, is being proclaimed as an alternative analgesic amid the opioid crisis.¹ With the current increased provider and consumer interest in the use of all forms of acupuncture within the emergency department (ED), it is expected that acupuncture will be used more widely in emergency medicine.^{2–4} Different approaches for acupuncture are required compared with outpatient or perioperative acupuncture, as ED patients have varied acutely painful conditions, and the environment is chaotic and busy.⁵ To date, formal training requirements and governance to perform any form of acupuncture in ED are ill-defined.^{6,7}

Teaching in emergency medicine has advanced considerably over the years with the introduction of such new methods as problem-based learning, infotainment, simulation, “four-stage skills teaching,” and “teaching on the run.”^{8–12}

Battlefield Acupuncture (BFA) is the most likely form of acupuncture to gain traction in the ED as it is standardized, easily learnt, readily applied, can be used for a wide range of painful conditions,¹³ and has been subject to many randomized clinical trials (RCTs) (Table 2). BFA is a form of ear acupuncture invented in 2001 by United States Airforce Colonel Richard Niemtzow for rapid non-pharmacological analgesia by medical and allied health professionals.¹⁴

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To gain traction of BFA in the emergency setting, education in BFA for emergency clinicians needs to adopt these recent education advancements, negotiate administrative hurdles, and adapt teaching to suit the ED clinicians, case mix, and environment.

OBJECTIVES

This article will provide an overview of ED-based BFA training, based on faculty experiences from teaching BFA workshops, combined with formal student (participant) feedback. It will assemble experiences, ideas, and recommendations on teaching BFA by looking at: “**who** was taught”; “**how** BFA was taught”; “**what** was taught”; “**who** taught”; the “**take-home manual**” and “**using feedback**.”

MAIN POINTS

Who Was Taught?

The audience for our workshops included predominantly emergency physicians (EPs), but also ED nurse practitioners and ED nurses. This article, although focusing on teaching EPs BFA, will also include some discussion concerning nurse practitioners and nurses and collectively refer to them as “emergency clinicians.” The insightful educator understands the personality, the needs and interests of these candidates, and adopts a teaching style accordingly.^{15,16}

What Are the Characteristics of Emergency Clinicians That Need to Be Accommodated in Teaching? EPs, whether it be through career selection or by necessity, enjoy making a diagnosis and completing management in the first ED visit. Furthermore, there is often the profoundly satisfying reward of making a diagnosis, the utilization of hands-on intervention and rapid symptom improvement in a limited time frame.¹⁷ This vocational contentment applies to such interventions as joint relocation, repair of lacerations, and relief of symptoms such as dyspnea or pain. EPs do vary among themselves in risk taking with modalities or procedures.¹⁸ They are more radical and open to new modalities compared with other specialties, and the majority are willing to challenge old stagnant paradigms, with the proviso that there is grounding in evidence.¹⁹ Many begin with a strong sense of social justice,²⁰ and this is reinforced by emergency staff (such as prehospital workers) working at the coal face having to manage patients’ acute medical and mental crises caused by their surrounding societal circumstances. EPs like to feel that their practice is not influenced by the pecuniary forces of pharma and industry.^{21,22} However, according to

expert opinion and evidence, this is unlikely to be true.^{21,23} There are many subtle ways that both prescribing habits and referrals for procedures are swayed.

BFA, although initially intended for frontline military usage with its rapid and standardized approach, might suit the EP mind-set. This mind-set should resonate with this modality as it suits their risk profile as acupuncture has minimal risk of adverse events and is justified ethically by a growing body of evidence. It is a hands-on practical skill with a potential immediate intervention/symptom relief modality. BFA is a new modality amidst a current pharmaceutical and interventionist-based medical fraternity, although having its roots in the Chinese healing arts of yesteryear.²⁴ This modality potentially offers a refreshing and rewarding new paradigm, with a hands-on skill that stands outside the current influences of industry and pharma.

Nurse practitioners hold that space somewhere between a doctor and a nurse. They have developed the cognition that includes differential diagnoses and a skill set that includes ED procedures. Indeed, as a group, they also have an active social conscience,²⁵ and those in our specific ED are deeply concerned with opioid overprescribing and have had some training in acupuncture. In all, they are ideal candidates to learn both body and ear acupuncture.

ED nurses have the mind-set to keep the department moving and often enjoy a closer relationship to the patient compared with the treating doctor. They perform necessary skills such as intravenous lines, urinary catheters, and defibrillation. The skill and application of BFA are ideal for them as it can be applied at triage, has one prescription that fits all, and is easy to learn.

How BFA Was Taught

An effective teacher in BFA for informed EPs must be both up-to-date and well versed in the evidence-based paradigm. The teaching of evidence and what it must cover is discussed in a subsequent section. The current standing of BFA is presented in our previous reviews.^{2,13}

However, the BFA teacher can also present some of the limitations of our current evidence-based paradigm. Some examples include utilizing therapies when trials have shown a nonstatistically significant result, excluding long-term outcomes such as quality of life and using the supposed placebo effect by incorporating “the art of medicine” into their practice.

There are RCTs that show a nonstatistical difference for the effectiveness of acupuncture as stand-alone or as an adjunct (for some examples see Table 2). Young et al. argue that for modalities such as acupuncture, which has a low adverse event rate and cost, then one should consider incorporating these therapies even if trials show a nonstatistically significant difference.²⁶ These authors believe that the burden of proof should lie with the expensive harming treatments and not with the cheaper nonharming

modalities.²⁶ Furthermore, many RCTs have outcomes that are short term and exclude long-term quality measures.²⁷ The natural progression from a successful general acupuncture treatment is for the patient to move on to other healing modalities within the Taoist framework, such as meditation, Tai Chi, Chi Kung, and its associated philosophies.²⁸ Patients requiring opioid analgesia after an acutely painful problem, such as an injury or post-operative, are significant and constitute 27% of those becoming chronic users.²⁹ Whereas body or ear acupuncture patients are more likely to move on to other nonpharmacological techniques that empower them as a whole person and may improve well-being for years.³⁰

EPs may be skeptical about an aspect of acupuncture known as “therapeutic touch.” This therapeutic touch can be described as belonging to the “art of medicine,” with such methods as “compassion,” “soft words,” and the “holding of hands.”³¹ Acupuncture, in general, incorporates therapeutic touch and a positive verbal exchange as key elements in the acupuncturist–patient interaction.³² BFA, although being a specific form of acupuncture, is likely to utilize this “the art of medicine” with its substantial evidence base. EPs may regard therapeutic touch as part of the placebo effect and, therefore, stands outside evidence-based medicine.^{32,33} For some, it may be just “too touchy-feely” (Haphephobia).³⁴ These misconceptions can be argued against and even supported by evidence-based medicine.

First, incorporating this “art of medicine” into emergency medicine practice is likely to reduce malpractice claims and improve patient satisfaction.³³ Second, there is some evidence that this “therapeutic touch” is an effective analgesic.³⁵ How the teacher presents this, is a challenge, as doctors get caught up in their biases and prejudices. To date, it has been raised in various ways, mostly dependent on the audience. There were times when this “art of medicine” was made a serious issue, whereas at other times a quick reference was presented in a humorous tone.

Methods. The author and faculty delivered blended BFA courses (online and face-to-face) to EPs at a national conference, clinicians in his ED (both within and external to a BFA clinical trial), and physiotherapists. A mixture of teaching techniques was used orientated to specific outcome measures that included multimedia presentations, (including prerecorded videos), problem-based learning, simulation, Peyton’s 4-stage method, infotainment and “teaching on the run.”

Precourse learning was provided primarily through prerecorded videos of lectures and skills along with assigned prereading. Topics covered in our precourse videos included: “Overview of application, suitability and case selection of ED BFA”; “Current evidence supporting ED ear acupuncture”; “How to perform BFA”; “Ear Acupuncture mechanisms”; and “Safety of BFA.” Included in the precourse package were videos by the inventor Dr. Richard

Niemtzow on, “Opening the packaging, removing an applicator and demonstration of the size of the needle” and “Application of the BFA points in sequence on one ear.” Also included were videos that we made ourselves on, “The application of BFA and DuoDERM tapes” and “The safe removal of the needles in the ED environment.” We provided key articles that included our systematic ear review,¹³ but would recommend for future courses for EP participants to include Dr. Richard Niemtzwow’s original BFA article,¹⁴ along with all BFA trials to date as listed in Table 2. The advantages of the online precourse learning were flexibility and time saved for the participants. The intentions were to enable the more rapid progression of the cognitive and skills load required for mandatory competencies in the face-to-face session. Complex new skills require multiple exposures for skill acquisition and could be attributed to latent learning or explained as digestion and integration of new material between sessions.³⁶ The student could clarify questions that arose during the precourse materials through various platforms (*e.g.*, web browsing) or by contacting the faculty. These online materials were also used for post-workshop reference and confirmation of specific skills and knowledge.

Simulation was especially crucial for participants using ear needles for the first time. The BFA sequence and anatomical point locations are shown in Figure 1. In this study, we provided model silicone ears that helped teach the dexterity required in using the Aiguille Semi-Permanent (ASP—Sedatelec, Irigny, France) ear needles (Figs. 2 and 3). Silicone ears can be obtained cheaply in bulk from Chinese distributors through an online marketplace company such as Alibaba.com. The ears with needles *in situ* also provided an aide-memoir for point location and a tool to assist informed consent for future patients.

“Peyton’s four-stage method” of teaching is frequently utilized in ED teaching and is heavily promoted in Advanced Life Support, and Advanced Trauma Life Support courses.¹¹ This method can be adapted to acupuncture teaching, where “the silent run through” is shown directly or on prerecorded videos. Then in hands-on sessions, the instructor talked the candidate through, students then talked each other through, and then began self-practice.

“Infotainment” is teaching with humor, competitions, multimedia, and music.³⁷ This technique was used in teaching a couple of the aspects within the course, including the contraindications for BFA (Table 3). We intend to increase and recommend to others this modern teaching technique in future courses to gain maximum traction and remain aligned to other Free Open Access Medical education (FOAMed) materials.³⁸

“Teaching on the run” was a useful modality when any of the ED faculty were present in the department.¹² With actual patients, the teacher called upon candidates to further reinforce learnt skills concerned with BFA indications, safety, and application.

FIG. 1. Sequence and point location for the 10 points of Battlefield Acupuncture for left and right ears (used with permission). Point locations are in order of application: Cingulate (1,2), Thalamus (3,4), Omega 2 (5,6), Shen Men (7,8), and Point Zero (9,10). In clinical practice, pain score checks are performed after needle insertion with pauses (walking, raising arms, or deep breaths), and application is ceased when pain reduction is achieved or if the patient requests.

FIG. 2. Take-home life-size silicone ears were used for the initial practice of Battlefield Acupuncture. These ears not only provided suitable simulation but also were an aide-memoir for point location and a useful tool to assist in obtaining patient consent.

“Problem-Based Learning” is paramount as teaching and research must be connected to the real world, that is, linked to real clinical analgesia problems that currently do not have ideal outcomes.⁸ In this study, problem-based learning methods were applied to the utilization of BFA. Cases presented in Table 1 were put to the class for discussion before BFA was recommended as an analgesic option.

There is both body and ear acupuncture research in emergency medicine that does not apply to analgesic problems encountered in the participants’ local ED case mix. Analgesic problems will vary according to local patient demographics and illness prevalence. For example, there was a recent trial on using body acupuncture to treat renal colic, which showed noninferiority to morphine.³⁹ In our suburban Australian case mix, nonsteroidal anti-inflammatory drugs and opioids are used successfully to treat renal colic without apparent short or long-term adverse effects. Therefore, it does not make much sense to an Australian EP to recommend any form of acupuncture for renal colic. However, for a different location and case mix, where renal colic may be a guise for opioid seeking or recurrent use, then it may be appropriate to consider BFA or body acupuncture as an analgesic alternative. Using the same argument for other trials on different painful conditions, treating limb fractures or sprains, is illogical from this perspective as these conditions are at low risk of ongoing opioid use.^{40,41} After splinting or strapping, the pain should be controlled. In contrast, if the patient and practitioner were in the wilderness or on the front line in combat, then a prescription for BFA would be highly appropriate.

FIG. 3. The ASP gold needle applicator and needle with a ruler in centimeters with 1-mm subdivisions. ASP, Aiguille Semi-Permanent.

What Was Taught—The Curriculum

Objectives and Outcomes. The BFA course aimed to provide the essential areas of evidence, safety, mechanisms, application, and needle use. We expected that emergency clinicians be competent to practice BFA after completion of the course. Although body acupuncture has been taught on some of the courses, BFA was given priority as it is easy to learn, was designed to treat all pain types,¹⁴ and has been studied in many RCTs for acute pain in the ED and perioperative environment (Table 2).

TABLE 1. SHOWING SIX EXAMPLES OF PROBLEMATIC PRESENTATIONS, WHERE STANDARD ANALGESIA CARE HAS RISKS IN MANAGEMENT, AND WHERE BATTLEFIELD ACUPUNCTURE COULD HAVE A ROLE

A middle-aged man presents with low back pain and has some yellow flags picked up by an astute clinician using the “STarT Back” screening tool. Paracetamol and anti-inflammatories had no effect! This man has a risk of opioid ongoing adverse effects, including overdose and death.
A patient with chronic pain presents with an acute exacerbation and wanting opioids.
A middle-aged woman represents with a headache that has already been thoroughly investigated, and standard analgesia care has failed!
An elderly patient presents with osteoarthritis of the knee or hip with pain and difficulty walking.
An elderly person presents with fully investigated spinal pain secondary to degenerative disease.
A middle-aged patient presents with prior multiple shoulder steroid injections for subacromial bursitis, supraspinatus tendinitis, or adhesive capsulitis.

Understanding the Evidence. Teaching the evidence supporting BFA use is the one cornerstone that will ultimately gain BFA’s traction in the ED. The teaching should not only include the actual evidence but also how to interpret it. The evidence presented needs to apply to real-world problems that the specific audience of EPs and nurses face. In teaching evidence, 3 study designs and meta-analyses need to be explained. Other aspects can include the study setting, the Cochrane quality assessment tool, and secondary outcomes such as opioid reduction, adverse events, or patient satisfaction.

The first form of evidence is to examine a study design where acupuncture as the modality under question, is compared with placebo. A potential alternative efficacious modality needs analgesic effectiveness above sham. This evidence can be applied to a clinical situation where a patient has a high risk of adverse effects to standard analgesia care (SAC) and justifies the use of acupuncture as an alternative analgesic. One is replacing an established therapy with an evidence-based alternative, for example, with the use of ear acupuncture for migraines as shown by Allais et al.⁴² The ear point used in this migraine trial corresponds to the Thalamus point used in the BFA sequence (Fig. 1).

The second study design is acupuncture versus SAC. This type of evidence reassures the practitioner that acupuncture is noninferior and can also justify its clinical use as an alternative to SAC. The only ear trial of ear acupuncture versus SAC to date was for biliary colic.⁴³ In this study, they used the sole acupoint “Erzhong,” which corresponds to Point Zero in the BFA prescription (Fig. 1).

The third situation or study design is using acupuncture as an adjunct. Here one can administer simple analgesia alongside acupuncture, such as by Goertz et al. for mixed pain types and show an improvement above SAC.⁴⁴ This evidence may be the most sought-after evidence for future acupuncture trials as it anticipates that utilizing analgesia through different modalities is additive in terms of effectiveness and that opioids sparing occurs. This anticipated opioid sparing has been shown to occur in perioperative acupuncture studies but not in ED studies to date.^{2,13,45} Table 2 highlights aspects of the BFA studies to date. All except 1 trial showed a mean pain score reduction on day 1; however, this should be interpreted with caution as it was not the predefined primary outcome. The predefined primary outcome for pain score reduction was not statistically significant in 3 of the 9 studies. It is imperative in teaching BFA to emergency clinicians that current evidence is presented succinctly and objectively.

Needle Handling. Acupuncture needle handling was in alignment with current ED aseptic methods and included the “five moments of hygiene” and the aseptic no-touch technique.⁵⁴ With the ASP gold needles, the applicator ensures that the needlepoint and shaft are not touched (Fig. 3). Isopropyl alcohol wipes were recommended for the use of semipermanent ear needles.⁵⁵

TABLE 2. SHOWING BATTLEFIELD ACUPUNCTURE RANDOMIZED CONTROLLED TRIALS TO DATE

First author, year and ref.	Study type	Location	Acute pain type	No. of participants (enrolled)	Overall study pain score improvement result	Pain score reduction at 24 hours or less compared with control	Secondary outcomes
Goertz, 2006 ⁴⁴	Adjunct	ED	Mixed	100	SS	Benefit $P < 0.05$	Opioid use NSS
Moss, 2015 ⁴⁶	Adjunct	PC	Sore throat	56	SS	Benefit $P < 0.05$	Less NSAIDs
Fox, 2016 ⁴⁷	Adjunct	ED	Low back pain	30	SS	Benefit $P < 0.05$	Opioid use NSS
Crawford, 2019 ⁴⁸	Adjunct	PO	Lower limb	233	NSS	Benefit NSS	Opioid use NSS, Less NSAIDs
Plunkett, 2018 ⁴⁹	Adjunct	PO	Tonsillectomy	95	NSS	Benefit NSS	Opioid use NSS
Kim, 2019 ⁵⁰	Adjunct	PO	Postpartum	70	NSS	Benefit NSS	Opioid use NSS, Satisfaction NSS
Ndubisi, 2019 ⁵¹	Adjunct	PO	Abortion	153	SS	Benefit $P < 0.05$	Less anxiety
Collinsworth, 2019 ⁵²	Adjunct	PO	Shoulder	41	SS	No benefit NSS	Opioid use NSS
Shah, 2019 ⁵³	Adjunct	PO	Tonsillectomy	134	SS	Benefit $P < 0.05$	Opioid use NSS

All trials used BFA as an adjunctive analgesic technique to standard analgesia care. Note that Goertz et al.⁴⁴ only used 2 of the 5 BFA points (Cingulate and Thalamus bilaterally), whereas Ndubisi et al.⁵¹ replaced Omega 2 with Cervix/"Uterus C" ear acupuncture points.

BFA, Battlefield Acupuncture; ED, emergency department; NSAIDS, nonsteroidal anti-inflammatory drugs; NSS, not statistically significant; PC, primary care; PO, perioperative; SS, statistically significant.

Safety. In teaching BFA, we remained mindful of the chaotic ED environment. This environment theoretically increases the risk of acupuncture adverse events, although they are uncommon. Although theoretically standard, a formal checklist for contraindications are crucial in the ED environment such as counting and documenting numbers of needles, the securing of needles with tapes, being prepared for fainting, and allowing patients to have access to a call button. The tapes supplied by Sedatelec are inadequate for the ED environment. They are poorly adhesive and do not prevent needle fallout/blood exposure. In the ED environment, 2 other suitable tapes include cut 1-cm square DuoDERM extra-thin (ConvaTec, Flintshire, United Kingdom) or Fixomull (BSN Medical, Charlotte, NC). The contraindications, both absolute and relative, were taught with the following mnemonic: "FABOH PIN" (Table 3) using entertaining video files.

In these early days of the utilization of acupuncture by ED staff, all participants are potential future advertisements and champions of the modality. Any complications caused by these potential champions could jeopardize this modality's introduction as it attempts to gain a foothold in potentially skeptical EDs. Therefore, we added more emphasis on safety precautions and contraindications (Tables 3 and 4). Safety recommendations are aligned with current standards on other procedural skills performed in the ED, and hence hand hygiene, aseptic technique, and sharps disposal were easily taught. This ease of learning provides further support to the argument supporting EPs requiring less training than other healthcare workers.

Mechanisms of Acupuncture Analgesia. Some researchers debunk acupuncture because it has no unified defined mechanism of action.⁵⁶ Likewise, for participants to

"make sense" of this novel analgesic modality, they repeatedly asked the question, "how does acupuncture (including ear) work?" We frequently had to spend extra time to address the mind-set of the attendee on this point. To fully

TABLE 3. SUMMARY OF RELATIVE AND ABSOLUTE CONTRAINDICATIONS FOR BATTLEFIELD ACUPUNCTURE USING THE MNEMONIC "FABOH PIN"

Contra-indications mnemonic for BFA: "FABOH PIN"	Explanation
F. Fainting to needles	Take a fainting history, ask the patient to tell the practitioner if they feel sick or are going to faint, preferably perform acupuncture sitting on a trolley.
A. Allergy to tapes or gold	
B. Bleeding predisposition (relative)	Avoid BFA for patients with a bleeding predisposition, on novel anticoagulants, or warfarin.
O. Already on opioids	Patient already on opioids or who have chronic pain may get less effective pain relief.
H. Heart valves prosthesis/hearing aid	Risk of perichondritis seeding abnormal heart valve. Hearing aid interferes with application.
P. Pregnancy	Little research on the safety of BFA in pregnancy.
I. Infection at the needle insertion site, blood infection, or immune suppression	Predisposes to perichondritis and/or sepsis.
N. Needle phobia	BFA may cause anxiety, fainting, or a stress response.

TABLE 4. ADVERSE EFFECTS OF BATTLEFIELD ACUPUNCTURE AND HOW TO AVOID THEM

Possible adverse effect	Prevention
Needlestick injury	Don't rush technique, don't place finger directly behind acupuncture point on the ear, tape (DuoDERM or Fixomull) securely. Don't perform over carpet, do a count, retrieve dropped needles with a magnet or vacuum cleaner.
Fainting	Take fainting history, warn of symptoms, apply acupuncture with the patient on a trolley.
Bleeding/body fluid exposure	Avoid those patients on novel anticoagulants or warfarin. If removing in ED or stopping bleeding—wear gloves.
Infection	Use isopropyl alcohol wipe with all patients, avoid those with poor hygiene, immune suppression, or local ear infection.

accept BFA, some needed to know of its likely precise mechanism! However, at times we encouraged them to be pragmatic, and agree that it is more critical to ask whether it is effective and whether patients accept it.

There are multiple and varied well-researched mechanisms of analgesia in acupuncture in general. These various mechanisms can range from the local release of mediators such as adenosine, bradykinins, prostaglandins, “cord inhibition via the gate control model,” descending inhibitory control (endorphins, gaba aminobutyric acid, and acetylcholine); and central mechanisms that include alteration of the pain matrix, glial cells, and neurotransmitters.⁵⁷ Since Dr. Richard Niemtzow invented the Battlefield prescription and its sequencing in 2001,¹⁴ BFA has stood the test of time, with clinical usage and a surge of clinical trials in recent times (Table 2). This BFA prescription included masterpoints from the research of Paul Nogier in the latter part of the 20th century.⁵⁸ The ear, although likely achieving its mode of action through the aforementioned general mechanisms, also has its ear-specific explanations. The Thalamus and Cingulate gyrus are parts of the brain matrix that are activated by body acupuncture in functional MRI studies.⁵⁹ The Thalamus and Cingulate ear points have been demonstrated to affect analgesia when used alone,⁴⁴ and are part of Nogier's somatotropic representation of the cerebral homunculus on the ear.⁵⁸ Nogier postulated that Omega 2 influences the mesodermal tissues of the body.⁶⁰ Shen Men (spirit gate) is a traditional Chinese ear point, and its name suggests its mechanism. As previously mentioned, Point Zero (Chinese point Erzhong) was used in a study as the sole analgesic point in biliary colic.⁴³ Furthermore, Point Zero is the center point of Nogier's fetal homunculus, corresponds to the umbilicus, and is both innervated by and theoretically influenced by the vagus nerve.⁵⁸

Negotiate Administration Requirements. A primary goal of the course was to assist the candidate in identifying a pathway from learning to clinical practice with competence. This section required significant elaboration and was repeatedly questioned by candidates. Acupuncture in general and BFA are novel techniques that are encapsulated in controversy, territorial disputes, and ill-defined training requirements. This controversy applies to Australia, the United States, and many countries around the world.

In Australia, the Medical College of Acupuncture (AMAC) in alignment with the World Health Organization (WHO), recommends a minimum of 200 hours of training before a medical practitioner is deemed competent to perform any form of acupuncture (the first part certificate).⁶¹ At this stage, there are no minimum training standards within the Australian College of Emergency Medicine. Theoretically, all medical practitioners can perform body or ear acupuncture (or “dry needling”) with no training requirement and receive an Australian government Medicare rebate.⁶² However, a medical practitioner could be considered irresponsible if an adverse event occurred secondary to acupuncture if performing acupuncture without attending a recognized (currently no standard) basic course that included sufficient training on acupuncture safety. Both the medical board and medical insurers would be critical of a doctor carrying out procedures for which they are untrained.

Physiotherapists in Australia require 16 hours as minimum training before Western acupuncture, or dry needling can be practised.⁶³ EPs have more advanced skills and knowledge of potential complications with needling than physiotherapists. It is the author's opinion that EPs would require fewer hours in training to be competent in BFA or body acupuncture for common pain presentations than stipulated by these authoritative bodies. This is especially so for BFA, which should be regarded as being a stand-alone technique with separate credentialing and should not be placed under the umbrella of body acupuncture training requirements. Having such long training requirements (200 hours) would be an obstruction to the timely uptake of acupuncture as an analgesic alternative in the current opioid crisis. Currently, there are no clearly stated minimal training requirements for emergency doctors to practice any form of acupuncture in the ED. Post-BFA course, we recommended that participants obtain local approval from the ED Director and accreditation from the hospital credentialing committee. We will recommend that a Specialist Interest Group within the Australian College for Emergency Medicine be established to recommend minimum training standards.

In the United States, credentialing for physicians practicing acupuncture varies from state to state, with some allowing acupuncture within their existing scope of practice, and is presuming of the individual that they have had appropriate training and competency to offer safe treatment.⁶ Other states are recommending a minimum of 200 hours as recommended by WHO.⁶¹ In the BFA 4-hour courses run by the United States military,⁶⁴ candidates deemed

competent postcourse, receive a letter recommending they are BFA credentialed with clinical privileges by the participant's hospital/clinic in this technique.

Who Taught

Potential teachers on our Australian courses included EPs with formal general acupuncture qualifications, general (family medicine) practitioners from the examination faculty of the AMAC, and Traditional Chinese Medicine (TCM) practitioners. EPs understood the case mix and what problems of analgesia could be solved. Furthermore, they knew how to adjust body and ear acupuncture techniques to the ED environment while understanding the mind-set of the participants. We envisaged full-time general (family medicine) practitioner teachers from the examination faculty of the medical acupuncture college and full-time TCM practitioners would have precise point selection, location, and needle techniques. The TCM practitioner faculty we used had excellent knowledge on the Chinese cosmological theories but unfortunately had some biases against the biomedical model, which was noted in the formal feedback.

Take-Home Manual

A take-home manual was provided to allow further study, reinforcement of lecture content, and ready access to the BFA prescription, point location, and safety issues. It was provided in a pdf format and designed to be accessed on emergency staff's mobile phones while on shift.

Using Feedback

Feedback was an essential component of the curriculum for such a novel modality attempting to gain traction with a new audience and for teaching methods that are attempting to match current benchmarks. It was agreed among the faculty that in establishing this new modality, the educators and the providers would be kept fully informed of each other's challenges and successes. This feedback was the foundation on which the new modality would be laid. Participant feedback was all very positive, with an average rating for the BFA course being 5.6/6 on a Likert scale. As mentioned previously, requests were made for more lecture time on the theory on BFA's mechanism for analgesia. Attendees enjoyed learning BFA mainly because of the ease of initial practice with the simulation silicone ears and felt the overall training time was adequate (Fig. 2). This feedback was compared with the 8-hour body acupuncture course where most participants felt that more practical training on needle insertion, meridians, and point location was required.

The author would recommend questions asked in our recent systematic ear review,¹³ and the BFA trials (Table 2)

for future feedback from participants. This feedback ideally would be asked 6 weeks postcourse. Suggested questions to include are as follows: whether they perceived peer and patient acceptance; was opioid use reduced; whether it was time-consuming; was it too costly; and which pain types that they found it to be effective? During these 6 weeks, there is an opportunity for quality reassurance of the trainee on both patient selection and point location. This process could be executed face-to-face if the BFA instructor and trainees are colocated or if not, through digital photographs of needle placement with a brief synopsis of the patients' presentations. Feedback from other experienced BFA instructors is that this is required for the first 10–20 patients.

CONCLUSION

BFA is accumulating evidence as an adjunctive analgesic technique in the ED. There is increased patient demand, along with provider interest in this nonpharmacological modality. Teaching BFA needs to be adjusted to suit ED doctors and nurses, along with their unique case mix and associated challenging environment. Just as crucial as teaching BFA skills, were teaching participants how to negotiate barriers of undefined minimum training standards and credentialing for staff administering BFA in the ED. The BFA course content also included understanding evidence, needle handling, safety, and mechanism of analgesia while utilizing the best faculty with the most effective teaching methods. We hope that our lessons learned in teaching BFA to emergency clinicians will assist others in the education of this ear acupuncture technique as a viable analgesic alternative in emergency medicine.

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