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Twelve Tips for Teaching Brief Motivational Interviewing to Medical Students

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Abstract

Background: Shifting from paternalistic to patient-centred doctor-patient relationships has seen a growing number of medical programs incorporate brief motivational interviewing training in their curriculum. Some medical educators, however, are unsure of precisely what, when, and how to incorporate such training.

Aims: This article provides educators with 12 tips for teaching brief motivational interviewing to medical students, premised on evidenced-based pedagogy.

Methods: Tips were drawn from the literature and authors' own experiences.

Results: The 12 tips are: (1) Set clear learning objectives, (2) Select experienced educators, (3) Provide theoretical perspectives, (4) Share the evidence base, (5) Outline the 'spirit', principles, and sequence, (6) Show students what it looks like, (7) Give students a scaffold to follow, (8) Provide opportunities for skill practice, (9) Involve clinical students in teaching, (10) Use varied formative and summative assessments, (11) **Integrate and maintain**, and (12) Reflect and evaluate.

Conclusions: We describe what to include and why, and outline when and how to teach the essential components of brief motivational interviewing knowledge and skills in a medical curriculum.

Introduction

Today's patients have numerous health concerns related to lifestyle factors; tobacco smoking, alcohol consumption, illicit drug use and poor dietary choices are cited as major causes of global burden of disease (Ezzati, Lopez, Rodgers, Vander Hoorn, & Murray, 2002). Consequently, medical practitioners are engaging in behaviour change conversations and playing a critical role in motivating patients to adopt and maintain healthy behaviours. The challenge for medical educators is to assist medical students to acquire the confidence, knowledge, and effective patient-centred communication skills in readiness for these conversations.

Motivational interviewing has gained empirical support as the gold-standard for health behaviour change conversations (Miller & Rollnick, 2002; Rollnick, Miller, & Butler, 2007), contrary to interactions based on advice-giving which have shown to increase resistance to change (Butler et al., 1999). Motivational interviewing creates an opportunity for medical practitioners to help patients explore and resolve ambivalence towards changing an unhealthy behaviour (Levensky, Forcehimes, O'Donohue, & Beitz, 2007). Brief motivational interviewing is used in time-pressured settings such as hospital bedsides and outpatient clinics (Rollnick, Heather, & Bell, 1992; Rollnick, Mason, & Butler, 1999). Numerous studies have confirmed the efficacy of brief motivational interviewing for changing eating habits, increasing exercise, reducing alcohol consumption, giving up smoking and other drugs, and improving treatment adherence behaviours (Lundahl et al., 2013) with primary care conversations of this nature taking just 10 to 12 minutes (Rollnick et al., 1999).

Teaching motivational interviewing or brief motivational interviewing to medical students is a recent inclusion in medical curricula around the globe. A growing number of studies have evaluated the effectiveness of such teaching, and reported positive results (Bell & Cole, 2008; Poirier et al., 2004; Spollen et al., 2010). The Bond University medical program is 14 semesters of study: the first 8 semesters are pre-clinical and the remaining 6 semesters are conducted in a clinical setting. At Bond University, a study investigated the efficacy of teaching brief motivational interviewing to pre-clinical medical students in their 6th semester of study, and established

improved confidence, knowledge and behaviour change counselling skills, using a 2-hour didactic workshop, a 2-hour role-play triad session, and 4 x 2-hour simulated patient encounters (Edwards, Arora, Green, & Nielson, in press). Another study demonstrated similar results using experienced healthcare providers (Edwards, Stapleton, Williams, & Ball, 2015). The aim of this article is to communicate our teaching experiences and provide the reader with sound, theory-based, practical tips for the development and application of teaching brief motivational interviewing in a medical program.

Tip 1

Set clear learning objectives

Our curriculum is premised on the Learn, See, Practice, Prove, Do, Maintain Model; an evidence-based pedagogical framework for mastery of skills in medicine (Sawyer et al., 2015). Sawyer and colleagues' 6-step teaching framework, is well-suited to achieving competency in brief motivational interviewing skills, such that students: (1st) *Learn* the theoretical underpinnings of behaviour change; (2nd) *See* a demonstration of the behaviour change process in a large-group workshop; (3rd) P*ractice* their counselling skills with peers in role-play triads; (4th) *Prove* their skill acquisition in small-group practice sessions with simulated patient cases, receive feedback from experienced educators, and demonstrate their knowledge and understanding in a barrier examination; (5th) *Do* brief motivational interview with real patients in a primary care setting, under direct supervision; and (6th) *Maintain* their behaviour change counselling skills during integral back-to-base teaching in their clinical years.

Well-defined learning objectives are essential for each step of the curriculum. In our program, the learning objectives for the initial 2-hour workshop are: *describe common health behaviour change theories, identify common influences on peoples' decisions about their health* and *recognise the need for an evidence-based approach to behaviour change counselling.* The learning objective for the role-play triads is: *demonstrate principles of brief motivational interviewing during a role-play,* and for the small-group practice sessions: *demonstrate effective counselling*

skills during a 10-12 minute brief motivational interviewing consultation with a simulated patient. It is recommended that simulated patient cases are taken from real-world examples, such as, patients overcoming ambivalence to quitting smoking, reducing alcohol, increasing exercise, improving diet, observance of safe sex practices, adherence to medication, and the like.

Tip 2

Select experienced educators

Several studies have advocated the employment of a multi-disciplinary team of educators for achieving effective delivery of a brief motivational interviewing curriculum. One study used a team of psychologists and counsellors (Martino, Haeseler, Belitsky, Pantalon, & Fortin, 2007), another study employed medical practitioners, psychologists and psychiatrists (Poirier et al., 2004), yet another study used psychologists, psychiatrists, and mental health counsellors (Haeseler, Fortin, Pfeiffer, Walters, & Martino, 2011), and our own program deploys psychologists, counsellors and general practitioners (Edwards et al., in press; Edwards et al., 2015), for teaching behaviour change counselling skills to medical students. The most probable similarity across studies is that the educators were experienced and/or purpose-trained and display a special interest in health behaviour change counselling. From our experience, each cohort of students contains one or two doubtful individuals who are less-willing to entertain this approach to helping patients move towards healthy outcomes. We believe educators who have first-hand experience with using motivational interviewing have the confidence, knowledge, and expertise to coach such students.

Tip 3

Provide theoretical perspectives

Integral to the *Learn* step of Sawyer et al.'s framework is acquiring the cognitive component or background knowledge required to perform a new skill (2015). Given that motivational interviewing is a complex, clinical method, we believe that understanding the theoretical perspectives of health behaviours helps students to comprehend the link between patients' motivations (e.g., biological motives, social motives, evolutionary and incentive theories) and their

health choices. In our program we preface our teaching of health behaviour change counselling with an introductory session covering the basis of the health belief model (Rosenstock, 1974), the theory of planned behaviour (Ajzen, 1991), and the transtheoretical/stages of change model (Prochaska & DiClemente, 1984). This session uses case studies to assist students to explore patients' perceived susceptibility, severity, benefits, barriers, and cues to action (Rosenstock), their attitudes, beliefs, subjective norms, and perceived behavioural control (Ajzen), and evidence of patients' readiness for change (Prochaska & DiClemente). We believe that an evidenced-based approach to teaching brief motivational interviewing to medical students is also one grounded in theory.

Tip 4

Share the evidence base

Medical educators who teach clinical communication skills continue to report barriers to effective teaching of psychological concepts and approaches (Litva & Peters, 2008). While psychosocial factors are increasingly recognised as key determinants of health (Lynch et al., 2001), some studies suggest that medical students perceive psychology and clinical communication skills as something that is *nice to know*, but not necessarily *need to know* (Carr, Emory, Errichetti, Johnson, & Reyes, 2007; De Visser, 2009). When introducing brief motivational interviewing to our students, we emphasise the evidence for using this approach to increase credibility and encourage *'buy in'* from students. In developing a strong rationale for the applicability of behaviour change counselling skills within the medical context, we recommend citing the plethora of studies that have demonstrated the efficacy of brief motivational interviewing for overcoming a range of unhealthy behaviours, and referencing the variety of settings that adopt it as a therapeutic technique. Teaching materials should direct students to the many meta-analyses and systematic reviews that have been published in the last decade (Lundahl et al., 2013). Attention to the evidence base for using brief motivational interviewing in cross cultural contexts should be included.

Tip 5

Outline the 'spirit', principles, and sequence

After learning the evidence-base for brief motivational interviewing, students should be introduced to the underlying philosophy or '*spirit'* of motivational interviewing (Miller & Moyers, 2006). Specifically, *collaboration* between the health professional and the patient, *evoking* or drawing out the patient's ideas about changes, and acknowledging and honouring the *autonomy* of the patient in the change process (Miller & Rollnick, 2002). It is important that medical educators emphasise that brief motivational interviewing is more than a set of technical steps; rather, it achieves therapeutic goals by employing a particular *way of being* or '*spirit'*. Adherence to the '*spirit' of motivational interviewing* can reliably predict the outcome of a behaviour change process (Gaume, Gmel, & Daeppen, 2008; Madson & Campbell, 2006; Miller & Mount, 2001; Moyers, Martin, Catley, Harris, & Ahluwalia, 2003; Moyers, Martin, Houck, Christopher, & Tonigan, 2009). Ensuring that students understand this concept is vital. In our 2-hour didactic workshop, students are asked to volunteer to take part in demonstration activities, where some students play the role of the patient and others, the doctor. Each volunteer is given a script, and students have to identify which doctor is demonstrating the '*spirt' of motivational interviewing* in their communication with their patient. Next, students need to understand the four principles that guide the behaviour change process i.e., *expressing empathy*, *supporting self-efficacy*, *developing discrepancy*, and *rolling with resistance*. Finally, medical educators need to familiarise students with the components of the brief motivational interviewing sequence to assist students to develop therapeutic alliances and elicit discussions about change. Patient-centred counselling skills taught during history-taking sessions may need to be revised (e.g., open-ended questions, affirmations, reflections, and summaries). Tip 7 describes the sequence for brief motivational interviewing that we teach.

Tip 6

Show students what it looks like

The use of audio-visual resources assists in the translation of theory into practice (Kalish, Dawiskiba, Sung, & Blanco, 2011), and meets the visualisation requirement of the *See* step in Sawyer et al.'s framework (2015). Medical educators should verbally explain each component in

the brief motivational interviewing sequence, and then show a pre-recorded audio-visual of a medical educator conducting each component with a simulated patient. Live demonstrations using transparent counselling pedagogy (i.e., where counselling is demonstrated and counsellor's thinking is made transparent) are also valuable (Dollarhide, Smith, & Lemberger, 2007). This verbal-visual process should continue until all the components of the brief motivational interviewing sequence have been demonstrated. Demonstrations should be concluded by showing a complete brief motivational interviewing consultation to enable students to integrate all the components of the process into a cohesive whole. We encourage students to directly apply their developing theoretical knowledge of behaviour change counselling by critically appraising the videos and/or live demonstrations e.g., asking students to identify instances where the spirit and principles of motivational interviewing were demonstrated. The educators also inquire what was done well and what could be done differently in future health behaviour change consultations. By chunking the teaching process, integrating practical demonstrations of each component, and encouraging critical appraisal of the visual resources, we believe that greater consolidation of the motivational interviewing process is enabled.

Tip 7

Give students a scaffold to follow

Motivational interviewing appears to be relatively simple process, however, developing competency in this counselling technique is more challenging to learn than assumed (Madson, Loignon, & Lane, 2009). We recommend that medical educators provide students with a guiding scaffold to help them stay on track when initially learning and practicing brief motivational interviewing. The scaffold outlines the components, sequence (e.g., *establish rapport, set the agenda, assess importance, explore pros and cons, develop discrepancy, roll with resistance, support self-efficacy, negotiate a change plan*), sample questions, statements and phrases that could be used in each component of the consultation (see Edwards et al., in press). It is important to emphasise that the sample questions and statements are only examples, not a script. Students need

to be encouraged to develop their own language and individual approach within the parameters of the spirit of motivational interviewing. In our experience, medical educators are best to allow students to use the scaffold in early practices (the first 1-2) and gently phase-out the use of the scaffold as students' skills and confidence improve. We found that overuse of the scaffold impacted negatively on the students' ability to build a therapeutic alliance, as evidenced by feedback from the simulated patients. Medical educators should note that certain components of the brief motivational interviewing sequence have greater flexibility than others in terms of temporal patterning. That is, although a practitioner may be most likely to encounter resistance from a patient when eliciting change talk (e.g., develop discrepancy), there may be other instances where practitioners are required to roll with resistance early in consultation while establishing rapport.

Tip 8

Provide opportunities for skill practice

Sawyer et al. (2015) suggests that students learn to master new skills with focussed and repetitive *Practice*. Evidence-based teaching of brief motivational interviewing supports practice that simulates real-world applications for the skill (Herschell, Kolko, Baumann, & Davis, 2010; Miller, Yahne, Moyers, Martinez, & Pirritano, 2004). Simulation exercises for behaviour change counselling typically translate to using peer-to-peer role-plays and/or simulated patient encounters (Lane, Hood, & Rollnick, 2008). In the *Practice* step of the teaching framework we introduce students to skills practice using 2-hour interactive role-play triad session. In the triad session, one student plays the role of a patient, a second student plays the role of the doctor, and a third student acts as an observer and provides feedback. Students take turns at playing the role of the doctor and each conduct three brief motivations interviewing cases (e.g., giving up smoking, reducing alcohol and uptake of condom use). Several experienced educators (see Tip 2) move about the triads offering formative feedback and answering questions. Provision of constructive feedback during practice sessions improves knowledge and corrects errors (Sawyer et al., 2015). Skills practice is consolidated using simulated patient encounters. Multiple practice sessions interspersed with

feedback and coaching has shown to be an effective approach for developing proficiency with brief motivational interviewing skills (Miller et al., 2004). Our students attend practice sessions with simulated patients in small groups (approx.4 students), for 4 weeks. Each week, each student conducts a brief motivational interviewing consultation with a simulated patient while an experienced educator and the remaining students observe and provide feedback. Students have the opportunity to watch or practice brief motivational interviewing using sixteen different simulated patient cases over the teaching period.

Tip 9

Involve clinical students in teaching

Some studies have examined the efficacy of using medical students in their clinical years to educate or coach those in their pre-clinical training; a process sometimes called, near-peer tutoring (Lockspeiser, O'Sullivan, Teherani, & Muller, 2008; Turner, White, & Poth, 2012). The suggested benefits of using students as tutors are twofold: the cognitive and social congruence experienced by the student-learner, and the consolidation of knowledge for the student-tutor (Lockspeiser et al., 2008). In our medical program, students in their clinical years can apply to join a student-as-tutor program. Once selected for the tutor program, students receive on-going professional development training in delivery of effective feedback, and can volunteer to assist with teaching brief motivational interviewing to students in their pre-clinical years. Anecdotal records indicate that pre-clinical students appreciate sharing the journey of learning the principles of motivational interviewing, and enjoy hearing real-world stories from their more experienced colleagues.

Tip 10

Use varied formative and summative assessments

Providing progressive feedback during training (formative assessment) and identification of students' difficulties after training (summative assessment) allows for remediation in simulation-based mastery learning (Sawyer et al., 2015; Trumbull & Lash, 2013). Objective skills assessment is the focus of the *Prove* step of Sawyer et al. (2015) pedagogical approach. Several studies

investigating the effectiveness of teaching motivational interviewing have demonstrated that provision of feedback throughout the training process promotes understanding and retention of behaviour change counselling skills (Barwick, Bennett, Johnson, McGowan, & Moore, 2012; Madson et al., 2009; Schwalbe, Oh, & Zweben, 2014), and assists students to clarify learning objectives and progress towards achieving same (Hattie & Timperley, 2007). Students in our program receive verbal feedback from experienced educators during the role-play triads and the simulated patient encounters. Student-peers are also encouraged to provide objective feedback. Summative assessment of brief motivational interview is conducted using a multi-media examination. The exam contains stimulus video vignettes; three to five minute excerpts of a doctor's behaviour change conversation with their patient. Students are required to answer short answer questions (or extended match questions) about the videos. For example, students might be asked to list up to eight skills demonstrated by the doctor that are most likely to improve the patient's motivation to change his behaviour. The exam has demonstrated good psychometric properties according to a five year review conducted by our assessment team.

Tip 11

Integrate and maintain

Following Sawyer et al.'s (2015) *Maintain* step of the pedagogical framework, we suggest the learning objectives for teaching brief motivational interviewing (see Tip 1) be mapped onto the patient-centred communication skills curriculum across the entire medical program. For example, in the pre-clinical years our students start by learning the communication skills required to take a medical history, display empathy, break bad news according to the SPIKES protocol, and communicate with patients with special needs (e.g., children, elderly, non-English speaking backgrounds). Our students also learn to communicate effectively in healthcare teams, such as conducting clinical handovers, practicing graded assertiveness, and practicing closed loop communication. At the end of the preclinical years our students practice open disclosure conversations, conduct behaviour change conversations (i.e., brief motivational interviewing) and

conduct shared decision making consultations. We train our students with the intention that the communication skills practiced in simulated activities in the preclinical years will be applied with their patients in the real-world during their clinical placements and beyond. In our program, brief motivational interviewing skills are maintained in two ways. First, students are required to conduct two brief motivational interviewing consultations with real patients while on their clinical placement in the general practice (i.e., primary care setting). Their supervising general practitioner is asked to observe the consultation and provide written feedback. Secondly, students are required to attend a back-to-base workshop in their final year of training. The workshop contains a range of clinical and procedural skills and includes a session to refresh knowledge and skills of brief motivational interviewing. One study reported that medical students who continued to use motivational interviewing in real-world settings displayed heightened levels of patient insight and progress, and subsequent increased self-confidence and competency as a practitioner (Shemtob, 2016); a sentiment we hope the graduates of our own program experience. We are in the early stages of planning an alumni study to substantiate this assumption.

Tip 12

Reflect and evaluate

Teaching brief motivational interviewing requires ongoing reflection, assessment, and evaluation (Miller & Moyers, 2006). The educative evaluation process identifies ways to strengthen delivery and overall teaching quality (Shemtob, 2016). We regularly evaluate our program to stay abreast of best-practice. Specifically, our evaluation has focussed on improving the ease with which students are able to process and apply the patient-centred counselling skills. Recent enhancements to our program are evidenced by the commitment to maintaining an experienced multi-disciplinary teaching team (see Tip 2), the inclusion of interactive activities to engage students in the initial 2-hr didactic workshop (see Tip 5), and the integration of student-tutors in the small group practice sessions (see Tip 9). These changes have been informed by anonymous online teaching evaluations (i.e., e-Tevals), verbal feedback provided by students to educators, and a formal, robust examination

of the effectiveness of the teaching program and resources (Edwards et al., in press). We advocate for ongoing reflection and evaluation.

Conclusion

Reflection on the successes and challenges of developing an evidenced-based program of teaching behaviour change counselling skills in our medical program for over a decade, prompted us to share our insights with others. As indicated in this article, we suggest using the *Learn, See, Practice, Prove, Do, Maintain* approach (Sawyer et al., 2015), and recommend the inclusion of both didactic teaching and simulation environments. For medical educators developing or re-developing a teaching program for brief motivational interviewing, the tips provide practical strategies and advice.

Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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