The smile is stronger than the handshake [version 1]

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Abstract
This article was migrated. The article was marked as recommended.
Healthcare providers struggle with the timing of handwashing and the handshake during the visit with patients, we question whether the handshake is even a necessary component of the modern introduction. The Physician-Patient relationship is strongest when built on trust, and typically begins with a traditional handshake. The importance of hand hygiene has become an integral part of the patient encounter. Taking a break for hand-hygiene interrupts the natural flow of the initial introduction and non-verbal body language to our patients. In current time constrained visits, we focus on handwashing instead of on continuous eye-contact with our patient. It is arguable that the elimination of the handshake may allow one to focus on more culturally acceptable universal verbal and non-verbal communication skills that help us to build essential trust with our patients.

Keywords
Handshake, Handwashing, Nonverbal communication
Introduction
Our first-year students struggled with the execution of the right sequence of the initial verbal introduction of themselves, washing their hands and shaking hands with their standardized patients. It comes as a surprise to us that although these steps in communication are practiced by preceptors, students continue to struggle with the awkwardness of the sequence of these formative skills.

It is not that health professionals are incapable of introducing themselves, but rather that the rituals that are considered “required” in our western culture can disrupt the flow of what is usually considered a natural process. It is well-known that hand-washing stewardship reduces hospital-acquired infections and therefore hand-washing must be an integral part of every patient visit (Pittet and Boyce, 2001). The timing of handwashing not only helps reduce rates of transmitting infection but also allows the culture of greetings with their patients to foster trust.

Complicated Sequences of Handshake and Handwashing in the Patient Visit
The relationship between physicians and their patients begins upon entry of the physician into the patient’s room. Healthcare providers are taught to knock on the door and enter the patient room. After entering they should both sanitize their hands with hand-sanitizer or by handwashing, and introduce themselves to the patient including their name, role and intent. Patients expect their physicians to wash their hands and are often reassured by being able to see their providers wash their hands. A provider who chooses to wash their hands must negotiate one of three different options. One option is to wash their hands during their introduction, which requires them to turn their back to the patient and talk to the patient at the same time. The second option is to introduce themselves to the patient prior to washing their hands while forgoing the handshake in order to reduce transmission of infection. The third option is to enter the room but ignore the patient as they wash their hands and then introduce themselves with a handshake after washing their hands. All three of these options allow for hand-washing to interrupt the initial greeting to the patient in some way that can be seem unnatural or awkward in our western society.

Use of hand-sanitizer avoids the first of the above scenarios but adds the awkward component of rubbing the hands to dry the hand-sanitizer either in silence or while trying to introduce themselves, with or without eye contact. If a patient offers their hand before the provider’s hands are dry, the provider must negotiate whether they should decline the handshake out of embarrassment of having wet hands or shake hands with the patient and apologize for having wet hands.

After the health care provider shakes the patient’s hand they typically do not re-sanitize, allowing for transfer of any infection the patient is carrying to other objects in the room and on the physician including the physician’s pen, computer and other note-taking tools which will be carried from room to room and may be used by other healthcare providers. Furthermore, even the sink that is used to wash hands may actually contribute to infection and outbreaks (Lowe et al., 2012). Therefore, while hand-washing does reduce the transmission of infection from physician to patient, it not necessarily reduce transmission of infection from patient to physician and back to other patients and healthcare providers (Given, 1929). It could be argued that patients should be educated on and held responsible for hand-hygiene as well since doing so reduces rates of infection at least in outpatient settings (Haverstick et al., 2017).

Trust and non-verbal communication
Trust is fundamental for future negotiations, adherence and outcome of patient diseases. Interrupting or not having the opportunity to focus on non-verbal communication due to handwashing may have long-lasting and deleterious effects on the ability to build trust in the initial encounter. We teach our learners the importance of non-verbal communications such as a firm handshake, eye-contact, sitting at the level of the patient, anticipatory silence, nodding and appropriate facial expressions in the patient visit. These non-verbal communication nuances have been shown to improve patient satisfaction and build trust in a range of patient encounter types. The smile has been proven through fMRI to release dopamine and more often than not is reciprocated reflexively (Beamish et al., 2019).

History and Current Status of Handshaking in the Health Care Profession
The handshake is thought to have originated in ancient times as a way of demonstrating trust and revealing that no weapons are hidden (Given, 1925). It remains a way of demonstrating respect upon initial introduction to another individual and is often accompanied by other non-verbal forms of communicating engagement, acceptance and gratitude such as eye-contact and a smile.

Hand-shaking may not be necessary for patients to feel satisfied with their provider (Griffith et al., 2003). In fact, in one study only about 50% of patients reported wanting their physician to shake their hand in the first encounter (Limon et al., 2016). The importance of non-verbal communications such as smile and direct eye contact far outweighed that of the handshake for both families and health care providers in a NICU with a handshake-free policy (Parga et al., 2017).
In contrast to the introductory handshake, the handshake at the end of an encounter may carry a deeper meaning and has been shown to reflect patient satisfaction (Jenkins, 2007). Improved patient-physician interactions improves health outcomes in those patients (Griffin et al., 2004). Therefore, non-verbal communication, an integral part of the physician-patient communication and relationship, has the potential to influence health outcomes. While one must be cognizant of the fact that a handshake is forbidden in some cultures and orthodox religions and that a handshake may not be universally mandatory, a handshake offered by a patient should be accepted and reciprocated in order to help build trust and rapport.

Should we teach or require our students to shake hands with their patient?
It seems prudent that the handshake is not necessary and may be an interruption in both verbal and non-verbal communication, the effects of which may outweigh any perceived benefit in building trust. When we teach our students how to negotiate the patient interaction there are two components that may need to be realigned. One, the timing of handwashing and second, the timing and necessity of the handshake. Sanitizing hands before or while entering while forgoing the handshake would also allow the student to focus on other forms of non-verbal communication such as eye contact, body positioning and posture and smiling. If non-verbal communication without a handshake is confidently and gracefully used, most likely no explanation for the lack of handshake will be needed. However, concerted efforts may be needed to widely educate the general community about the underlying reasons for this change in practice. Handwashing before the physical exam would still be necessary, but by this time rapport will have been made and a pause for handwashing would unlikely be a communication barrier. A handshake may be desired to close the encounter with an expression of gratitude and respect. However, students and physicians should be aware that culturally appropriate alternatives to the handshake in both greeting and closure should be considered.

Conclusion
The handshake is a ritual used to establish a trusting relationship between patient and provider. It may be not desirable or not needed if other body language is used appropriately. Therefore, rather than using a handshake as the norm, it may be a best practice to use cultural and contextual based introductions to our patients.

Take Home Messages
- The handshake is a contemporary Western form of establishing and communicating respect and trust.
- Handwashing is an expected component of the clinical encounter.
- Other forms of establishing rapport through nonverbal communication should be taught and reinforced in the medical profession.

Notes On Contributors
Vijay Rajput, MD, is a professor and Chair in Department of Medical Education at Nova Southeastern University, Dr. Kiran C.Patel College of Allopathic Medicine. His area of interest is in bedside teaching, humanism, professionalism and Innovative curriculum development. https://orcid.org/0000-0001-5203-5342
Lauren Fine, MD is an assistant professor in Medical Education at Nova Southeastern University, with interests in the doctor-patient relationship, ethics and humanities.

Declarations
The author has declared that there are no conflicts of interest.

Ethics Statement
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Migrated Content

Version 1

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Susmita Reddy Karri
Topiwala National Medical College and BYL Nair Charitable Hospital, Mumbai, India

This review has been migrated. The reviewer awarded 4 stars out of 5

A very well-timed article. Even though hand-shake is traditionally considered to be one of the best/time-tested ways to create patient rapport, especially in the Western world and in an OSCE setting, I agree with the authors that a strong, friendly, and confident body language can be more effective in doing the job. Having worked in 3 different countries—India, UK, and now Australia, I have almost never offered handshake (unless the patients themselves do so) and never did it affect my patient rapport.

Competing Interests: No conflicts of interest were disclosed.

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PATRICIA CURY
FACERES

This review has been migrated. The reviewer awarded 4 stars out of 5

This is a very appropriate article in epidemic time! It makes us think about our cultural costumes. In Brazil, doctors not only are used to handshake their patients but also to kiss their faces and their families, sometimes. We should discuss these things better with our students, not only about handwashing.
protocols. Congratulations!

**Competing Interests:** No conflicts of interest were disclosed.

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Balakrishnan Nair
Centre for Medical Professional Development and University of Newcastle

This review has been migrated. The reviewer awarded 4 stars out of 5

This is a timely article. Handshake is only one way of developing rapport with the patient. As the authors state, there are other ways of doing this and we can learn from eastern cultures. I often go to the waiting room and greet the patient and accompany them to the consultation room. Then start with a smile and chit chat before getting into the formal consultation. During inpatient rounds this will be different; again a smile and friendly manner will go a long way. Patients are anxious and we need to put them at ease. The other major question is if we have clean hands and patients do not have, then what is the solution?

**Competing Interests:** No conflicts of interest were disclosed.

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Thomas Puthiaparampil
UNIVERSITI MALAYSIA SARAWAK

This review has been migrated. The reviewer awarded 4 stars out of 5

It is a timely and well written article. Hand hygiene is important, so also are building good rapport with the patient and gaining their confidence. I think the students should be taught to avoid the robotic rituals and rather be aware of the reasons for doing things the way they should be done. As some of the
reviewers mentioned, handshake is rather western, not universal, and it is not acceptable in some cultures. However, a warm smile, eye contact and a pleasant greeting is universally acceptable as an introduction. Greeting the patient and taking history does not need hand washing, but physical contact would definitely need it. I agree with the authors.

**Competing Interests:** No conflicts of interest were disclosed.

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**P Ravi Shankar**
American International Medical University

This review has been migrated. The reviewer awarded 4 stars out of 5

This is an interesting article especially in the context of the ongoing COVID-19 pandemic. I have worked both in South Asian and Caribbean medical schools. The importance of handwashing and the handshake is emphasized during the OSCE with the standardized patient. In today's environment the risk of transmitting infections is widely recognized as a drawback of the handshake. The authors do discuss other culturally appropriate alternatives. Folding of hands and doing Namaskar, and a bow may be other forms of greeting. Washing hands both before and after the physical examination is important. I am not sure in what form the traditional western handshake will survive in a post COVID-19 world. Also, most students wash their hands as a routine procedure and the correct technic of handwashing is not always followed. This is an interesting and well-written article which I enjoyed reading.

**Competing Interests:** No conflicts of interest were disclosed.

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**Puja Dulloo**
Pramukhswami Medical College
This review has been migrated. The reviewer awarded 4 stars out of 5

Interesting article
In our country, India, we do not have any custom of handshaking. The age old tradition of folding hand is considered to be a greeting sign but never observed this behavioral aspect during physician-patient relationship except for verbal greeting by saying “Namastey” or “Adab” or other verbal words as per the local language or custom. During the present COVID-19 pandemic, hand-shaking approach of greeting is the most common means of infection spread. Thus the Indian way of hand folding has been accepted as one of the best way to keep any sort of spreadable infection at bay. Addressing the issue of hand-shake and hand sanitation during this hour of global pandemic was well required. Smile, a strong non-verbal communication skill not only as a part of physician-patient relationship but even for humanity aspect. “A warm smile is the universal language of kindness.” – William Arthur Ward.

**Competing Interests:** No conflicts of interest were disclosed.

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Junichi Tanaka
tohoku university

This review has been migrated. The reviewer awarded 5 stars out of 5

It was a very interesting article. In Japan, I don't think there is much of a custom to shake hands. However, in Japan, many doctors perform some kind of physical examination. It also serves the purpose of determining something by physical examination. But more importantly, it's done as a ritual of nonverbal communication. With the current coronavirus epidemic, more doctors are avoiding physical exams. I think we are in a time where we are forced to think about how to empathize and communicate without directly touching the patient. It was a very thought-provoking opinion in that regard.

**Competing Interests:** No conflicts of interest were disclosed.

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Deb Halder

This review has been migrated. The reviewer awarded 4 stars out of 5

The authors need to be offered kudos at the first glance as they introduced a topic relevant at the event of COVID-19 pandemic that teaches some habitual practices as mandatory. This is claimed to have been a personal opinion which has maintained an orderly progression of thought and logic; the topic has been reviewed from multilateral perspective of religion, social as well as clinical aspect that addresses interest is its heightened insight over the issue of hand washing and hand sanitizing. But few more literature would have been suitable to make this paper more argumentative and persuasive with reliability.

Competing Interests: No conflicts of interest were disclosed.

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Subha Ramani
Harvard Medical School, Brigham and Women's Hospital

This review has been migrated. The reviewer awarded 4 stars out of 5

I read this perspective with interest and hand washing and sanitization is important regardless of a pandemic context. Clearly, many studies have demonstrated the ease with which bacteria and viruses can be spread from clinician to patient, vice versa and to other patients. Non-verbal communication with patients and families are very important in building trust and rapport and a handshake has been one of these behaviors in the Western world which many countries in the non-Western world have also adopted. On the other hand, I have seen handshakes without a smile or any other behaviors that indicate rapport. In these cases, the handshake is cursory and not communicating any empathy. Therefore, I agree that we could start thinking about several strategies to build patient relationships beyond a handshake. The current pandemic may have made this issue more urgent, but lessons learned can be applied when the crisis settles.

Competing Interests: No conflicts of interest were disclosed.
Trevor Gibbs
AMEE

This review has been migrated. The reviewer awarded 4 stars out of 5

During the time of the Covid-19 pandemic, the issue of handwashing is important. In reviewing this paper however, I tried to read it without the coronavirus looking over my shoulder. I felt that it was a well written paper about a very debatable issue regarding those initial and very important first, and last elements of the patient encounter. I have encountered many times, usually during an OSCE where students were marked down for omitting to wash their hands because their prime motive was to make effective patient contact. It is not that hand hygiene is not important, it is but as this paper discusses, when and how is more important. Ask many students during training and they will frequently tell you that they wash their hands because it becomes an expected ritual rather than having discussed it, why it exists, and what effect it has on the early communication with the patient. This paper does not provide the answers, it leaves the reader thinking about an accepted practice and as such I would recommend it to all those involved in communication skills and clinical skill development.

Competing Interests: No conflicts of interest were disclosed.

Johnny Lyon Maris
Southampton GP Education Unit

This review has been migrated. The reviewer awarded 4 stars out of 5

This is a really well timed article. It reads well but I think it could have gone further. General populations over the last 6 weeks have moved from the 'elbow touch' or 'foot bump' as a greeting to social distancing, where personal physical contact is taboo. We now have verbal and non-verbal greetings to establish
rapport and trust with no physical exchange. For the future of infection control this may well be the normal. I find a warm verbal greeting, eye contact and a smile cements the start of a consultation and this is where I consider the future lies. To wash your hands after the previous consultation/contact has ended is good practice, to then shake hands 'contaminates' the physician and for infection control purposes, the doctor should then wash their hands again. As the author states the eye contact and rapport built is interrupted while the second hand washing is carried out. Avoiding the handshake is just good clinical practice, and the western world should learn from our Hindu colleagues and use the namaste greeting.

**Competing Interests:** No conflicts of interest were disclosed.