

# Conducting Research in Professional Identity Formation

Summary from the *Understanding Medical Professional Identity and Character Development Symposium* held April 30, 2021

# **Conducting Research in Professional Identity Formation**

## **Discussion Leader:**

Adina Kalet, MD, MPH

## **Recommended Pre-Reading:**

Kalet A, Buckvar - Keltz L, Harnik V, Monson V, Hubbard S, Crowe R, Song HS, Yingling S. Measuring professional identity formation early in medical school. *Med Teach.* 2017 Mar;39(3):255 - 261. doi: 10.1080/0142159X.2017.1270437.

Tagawa, M. Scales to evaluate developmental stage and professional identity formation in medical students, residents, and experienced doctors. *BMC Med Educ* 20, 40 (2020). <https://doi.org/10.1186/s12909-020-1942-y>.

## **Primary Discussion Questions:**

1. What are the animating and wicked problems in professional identity formation and character development in medical education?
2. What fundamental ideas and beliefs about how one becomes a physician are manifest in how we currently approach PIF and character?
3. Where is it obvious that there are competing belief systems?

## **Questions for the Group Moving Forward:**

1. What the various ways we might work together on these scholarly dialogues?
2. What do we have the capacity and time to do?
3. What would we need to do to be successful?

## **Summary/Abstract**

What follows is a lightly edited, anonymized transcription of the conversation held on April 30, 2021 among 12 individuals interested in research in professional identity formation. While all participants in these conversations were deeply committed medical educators, the group was diverse with respect to professional training, years of experience, geographic location, and many other perspectives. What is clearly shared is a deep and abiding interest in the education of physicians. Several hardy research questions were raised and discussed, these included, in broad strokes; Can we link medical professional identity formation and patient outcomes? What is the nature PIF during residency training, in particular, trainees individualize? What impact does a robust professional identity curriculum have on a sense of inclusivity for medical students? How well do the concepts, theories and specific programing related to Professional Identity Formation are inclusive of an increasingly diverse student body and workforce? How much do prevailing curricular and research approaches incorporate what we are learning about the impact on PIF of

individuals with various socio-historical experiences (e.g. Among Black descendants of slavery, forced migration, experiences of discrimination or survival of genocides)? To what extent if at all are minority voices incorporated into our understanding of this field? And how to consider the relationship/tension among individual PIF, the learning environment, and systems context? What is the role of natural language processing or AI approaches in the study of PIF? A few selected references are provided as they were referred to in the conversation.

## **Take Home Points:**

1. Interest in Medical Professional Identity Formation as a developmental construct is high and there are many motivating research questions.
2. Models of PIF need to be interrogated for their fit across diverse groups of trainees to ensure equity and inclusion and avoid negative consequences, especially as the student body diversifies before the faculty “catches up”. These models should hold the system accountable for its role in PIF.
3. There is great interest in how to facilitate and monitor PIF longitudinally both quantitatively and qualitatively.

## **Transcript:**

The discussion leader began the discussion with a round of introductions.

[Participant 1]: So, my interest in professional identity formation got sparked when I started thinking about identity formation as a military physician and how the dual role of a being a military officer and a military physician and how your identities form .... That was the spark which led to kind of thinking about professional identity formation in a couple of different realms. One is in equity development. That's pertinent to my fellowship but also some of the work I do within the military medical system.

Then also, just probably question two is where I have some thoughts and some questions about the group just about some of the theoretical underpinnings of professional identity formation. How when we're thinking about developing curriculum to get PIF, how are we using those different theoretical foundations to decide how we're going to develop the curricula? Are we doing that at all? If so, what trends have we seen in that over time? Are we missing opportunities based on some of those concepts that perhaps would shape how we develop curriculum moving forward? That's kind of my summary in short.....

[Discussion Leader]: Great. ... I want everybody to think about this question on the table which is what are the conceptual frameworks and theoretical models that are hearty enough to build a good, meaningful curriculum on?

[Participant 2]: I was drawn to this discussion because of the link between professional identity development and character development. I hope we can talk a

little bit about question two.

[Participant 3]: I'm director of our academic coaching program and we are working on thinking about our inter-sessions and how to integrate professional identity formation into our inter-session time specifically for our preclinical, our first two years of medical school. This is incredibly timely and thought provoking and I appreciate it. I'm really interested in linking the work that's done in medical education around professional identity formation and thinking about outcomes in terms of how patients are cared for. I also am really interested in what having a robust professional identity curriculum does for a sense of inclusivity for medical students.

We have a very, very diverse student body. We have a much less diverse faculty. Figuring out how a shared set of values...I'm curious about how this could lead to creating a robust inclusivity for our student body as we do better at creating a representative workforce of physicians.

[Discussion Leader]: Really interesting particularly because it's controversial right now around, as you know...there have been a number of conversations in the medical education literature about weaponizing professionalism, particularly against individuals who are otherwise underrepresented. So, it's very important ... to really talk about making sure we attend to those things and capture those experiences..

[Participant 4]: I'm currently a resident. I .. came into this area with a little different lens. I was really drawn in first as we were thinking about resident scholarly engagement. .. We found that ...a lot of (residents).. are still ... in in pre-stages of that, and I ..become .. interested in ... how to develop ... residents to navigate ... what they were doing in residency training and potentially for their career. From that, though, I started to develop ... interest ....in a broader perspective of what does this look like. How do we support trainees? How do we...our trainees and the physicians through their lifelong development with it... and actual metrics that we use.

Two things that kind of stood out to me as I looked at the literature. One was it seemed like there was a gap in the approach that dealt with the internalization from the trainee's standpoint. There was a lot of things developed from institutions of how to address PIF and what could you do, and how could we think about it, and measure, and help support. But it seemed like there were some gaps in terms of what was the individualization of it and how do trainees take it on. How to kind of support their lifelong learning with that aspect of it.

Then... like the person just before me, there's definitely the gaps when it comes to understanding that development process with trainees from underrepresented backgrounds. Like you said, kind of the weaponization

of professionalism is something that in my role of talking with trainees and mentorship through different pipeline pathway programs for a number of years, it definitely becomes a key part. But then looking at are there different things than what this identity formation development looks like as people come from different backgrounds. Because they may have a different sense of their individual identity, but then their perception and what they take away from the professional component. It may be a little different. And trying to navigate that world of bringing those two pieces together can be a little bit of a different challenge for them that we don't really have a great sense of just based on how things are presented in the literature at this point.

[Discussion Leader]: Obviously, medical students and residents come to us as adults with fully formed identities, a whole series of other identities. ...we don't know a lot about, like you said, how they interact. There is lots of evidence to suggest that ...people's prior experience, obviously, is gonna have a big impact on their professionalization.

[Participant 5]: So, I was interested in the second one just because of the way our school is. We're majority minority and I know that professionalism and professional identity formation are related but not the same. We're getting a lot of pushback on the notion of professionalism, as you can well imagine.

[Participant 5]: [At my institution] we have a mission of recruiting and educating students from historically underrepresented in medicine populations to provide care to historically underserved populations in medicine. So, we're 90 percent underrepresented in our school, about 30 percent African American, about 30 percent LatinX, about 30 percent Asian, and 10 percent white. A substantial proportion of our students are from socioeconomically underserved backgrounds. So, what I would like to understand is how and whether we have...how can we create a just, equitable, diverse, and inclusive understanding of what constitutes professional identity formation? It doesn't necessarily mean that I think that what's happening here is wrong, but I just wanna make sure that it fits those imperatives.

[Discussion Leader]: Yeah, explicitly. Right? With intention.

[Participant 6]: All of the questions that people have talked about I think are important and essential questions. But the two in particular that I think are important as somebody who's talking about sort of what happens now that we've started talking with learners about these issues. How do they then take this as they go forward into residency and beyond? I think starting to think about how do people take this framework and use it as they grow professionally, and what do we need to do to support that continued growth? I think that's one issue. Then the second issue ...how do we help

learners. How do people integrate their individual identity and their professional identity and ensure that there's room for some dimension and some depth in identities so that people find what works for them rather than clashing? Being clear about and investigating how people integrate them and broadening our perspective of what a professional identity is.

[Participant 7]: So, I'm a computer scientist thinking about quantitatively dealing with these or turning this into an experimental situation. How do I measure these things to see the impact? I'm interested in what kind of outcomes. I think [Participant 3] mentioned the outcomes information here. That you can measure the professional identity but there's this concept that maybe you're measuring how well the student is parroting the right words and phrases versus to get to what the true outcome is....validity measures...

[Discussion Leader]: You're also, ... working on a natural language processing approach to these essays to help with the sort of scaling up of potentially using these kinds of tools.

[Participant 7]: Yeah. The new research project for me is to take these essays and just throw some state-of-the-art AI at them and just see if Google could do this for us. It would accelerate it so much. We would get so much better about it. ...It's a very complicated problem.

[Discussion Leader]: It's controversial so you'll get some pushback ...

[Participant 6]: I was just gonna say as somebody who does a lot of the scoring of these, I'm so curious to see how you move forward with this and very hesitant.

[Discussion Leader]: Yes...people are a little bit worried when you talk about AI.

[Participant 8]: My specific interests in the research aspect of this are things like, first of all, just to describe where interns are, my interns were, and where they go over time. I'm also interested in looking at their actual PIE essays and trying to find specific examples that they're using to try to understand the scenarios that they're referencing to see if we can somehow harness that information to have more specific recommendations for how to reflect on where they are and where they wanna go.

I also am really interested in how we reach people who are sort of pre-contemplative in this whole reflection process. So, how can we develop programming that speaks to them as well as people who are already kind of believers in this? Then the last thing I'll say, and maybe this overlaps in a weird way with what [Participant 7] is working on, but I have my residents already do some reflection exercises. So, my question is, is there any way that we can figure out a way to apply this framework to essays that aren't the PIE so that we can kind of take smaller snapshots as time

goes on without having to redo the one-hour-long nine question PIE every single time? ..

[Participant 9]: I'm a medical education researcher. I'm interested in workforce and workforce development and particularly interested in how students make career choices. I'm on a campus that's got a mission to become community engaged and see community engagement...or rather see professional identity as an essential component of producing community engaged physicians. Right? Getting physicians to see their identity as something that exists beyond the office room or the operating suite or the hospital walls. So, I'm curious and want to learn more about professional identity in terms of trying to meet our campus mission and the health needs of our communities here at large.

[Participant 10]: I just briefly will say that I'm super interested in this longitudinal development aspect. Thinking about the research that you're doing on the essays; I find it really intriguing. I'd like to think more about a scholarly approach to using the humanities. We're trying to do that through qualitative analysis with some of the reflective writing work. As I mentioned earlier, using the history of medicine is a key interest of mine as Richard Horton has called for, for example, holocaust medicine education to be required in all curricula. I think that if we join together in a scholarly fashion in the research and publish. Not just do conferences abstracts, but we also publish the work like you're doing, [Discussion Leader]. You have this new paper out now. I think that would give us the credibility to go to curriculum planners and deans.

[Discussion Leader]: ...I agree with you about writing and communicating. ... this conversation is going on around the world and is very important all over the world. I love the representation in this group. I mean, just think about how many different schools, and different perspectives, and different parts of the country are in this conversation.

..We presented one conceptual framework, right, built on adult development theory with a few decades of good, theoretical work. A fair amount of quantitative work, but in medical education we're doing much more now in the last few years including in-depth, rigorous qualitative work in this domain. So, it is a conversation between the different kinds of measurement. Yet, as I presented during the plenary, the literature is kind of all over the place.

There isn't an agreement in our field as to what we even mean by professional identity development. Except that it does seem like we're moving toward a developmental framework. An idea that it's a lifelong process and that there's different stages and phases. But what we call those phases and stages and whether it's even right to measure them in the

way that I propose...these are ongoing, productive conversations but it's very controversial right now. So, I'm wondering...I've heard some highlights here. We wanna make sure minoritized voices are incorporated. This is not a normative model but an inclusive model. That it helps people move through their professional development in a health and growth-promoting way. It certainly could be unhealthy but we're hoping that it'd be growth promoting.

I heard real questions about meaningful things like admissions. Like helping certain kinds of students who are not in the homogenous mainstream kind of navigate their way around different identities. So, [Participant 9].

[Participant 9]: ...Obviously, .. Some things we only can learn through those lived experiences. I'll never know what it's like to be a Black woman no matter how many conversations I have. I don't have that lived experience. I wonder how much of professional identity in becoming a physician mirror that and what are the gains by intentionally addressing professional identity or simply allowing it to happen. I'm not trying to be difficult, but I think I wanna be intentional about that because I want someone to tell me why. I do believe it matters, but I wanna be explicit about why it matters. Why is making this intentional, deliberate, and transparent better than simply allowing people to become physicians?

[Participant 3]: Can I speak to that?  
It's an interesting question. I think when you work with medical students who are part of minoritized groups, it's quite obvious. They spend so much time and energy working through imposter syndrome and navigating stereotype threat that it takes away from their opportunity to become the physician and embrace the profession they have chosen. It's harmful and exhausting. So, if we can create a way where we can say, "Hey, you're here. This is the group that you have intentionally chosen with your identity and can we develop that together intentionally and deliberately. Look, all of your peers are doing the same work and that's part of what it is." I think that we could really foster some amazing growth of individuals who have been shut out by a sense of not belonging to a profession.

[Participant 9]: That's a lovely answer. ...what I want is actually the system to change, not the mentees to change. Right? I am concerned that the question about professional identity formation means helping people who have been historically stigmatized, disadvantaged, put upon, beat up, whatever adapt to an abusive system rather than changing our sort of Old White Man academic culture of medicine system to reflect the diversity we wanna see in our practice. The system sucks. Let me just tell you, as a white guy it's not the system I wanna be in either.

So, my concern around mentorship and mentoring and professional identity is, hey, let's help people figure out how to succeed in a toxic system. Rather than let's change the system. Obviously, there's elements of both to this. I truly...your answer is spot on, but I think some of this is not helping people survive in the system but changing the system.

[Participant 6]: ... another reason that it's important to do this is using the information, the model from Bebeau (Muriel Bebeau et al.) Thinking about professional identity as not a series of values or characteristics that somebody has but a way of deepening thinking about who you are and who you want to be. ...in work we've done with the exemplars ... one ... person we interviewed talked about how it was the capacity to struggle with difficult issues over the years and figure out what was the best way to manage these conflicting values that helped him really grow. If we think of professional identity and the work around it as a way of providing the capacity to think about all of those issues and why the system is screwed up, and what needs to be changed about...so, integrating yourself and the profession doesn't have to mean you have to hide yourself and become like the profession. It's a two-way street.

[Discussion Leader]: ...we're doing an exemplar study, ...We got nominations and we selected people based on multiple nominations. The people who were nominated and the people in the highest level of professional identity formation aren't necessarily well-liked within the system, just to be clear. These are irritating people. I mean, irritating to the system. Right? That's actually another value of sort of holding to conceptual model that says that the highest level, the most mature level is somebody who ...Will challenge certain norms. So, just to say if we can hold to that, it's not about making people good citizens of the current system. That's the mid-level, the team-oriented idealist stage. ...they're not individuals. ... They're members of a team and they're identifying their team in the way that we understand. That's not what we want ultimately.

The issues around students with multiple identities coming – all of our students have multiple identities coming in, but identities where they don't have the tacit assumed understanding of what it means to be a physician in the same way as the homogenized folks who are from multi-generational physician families. That's a good thing for the profession. It's good for us to have a real explicit discussion of what we think it means to be a physician. ... that's where .. doing it formally matters. I wonder if there's a research question or research idea around really looking at that, whether we're really doing that or not? Whether we can do that, whether we can bring minoritized people into that conversation in a meaningful way that reduces the anxiety associated with trying to figure out what it means to join the profession.

[Participant 4]: Debra Walden mentioned taking some ..... There's I think one in academic medicine and then a couple of others that she had written and some other pieces that were more kind of focus group type approaches with small groups of trainees or physicians from different backgrounds. Largely African American if I remember correctly (Wyatt et. al., 2020, 2021, 2021).

[Participant 4]: ... But I think the piece that gets left is just, like you said earlier, since we don't have this clear, powerful definition. Some of those things maybe get skipped over in terms of discovery pieces that would be related to PIF, but we don't necessarily think about it in that way. The way which may not have been there, or the measurements may not have been there at the time those studies were done. Or even just the concept that the researchers had kind of thought about in the setting of what they were doing.

[Discussion Leader]: Exactly right. So, there's a little bit of literature that's starting to emerge that may add to these models that we're thinking about. We need to take those things – again, those are the minority voices in the literature. That's why qualitative research is so valuable because it doesn't overemphasize the norm but it intentionally identifies minority voices in this conversation.

[Participant 10]: .... I'd like to say we need to think about the language we use. Because I also hear this thing about struggling. Students are struggling. We're all struggling. I was like, you know what? Maybe grappling is a better word because the beauty of being in medical school is such a gift. If we could all join together on that and think about the underrepresented voices and the beauty they bring, the strength they bring and highlight that and just go to this strong space...especially coming out of COVID of look what our students did and how they got through. Let's look at that. Let's think about that. Bring our own strengths as faculty members. Maybe the three Rs that I wrote about, I had to get themes from 23 articles on PIF and it came out as reflection, relationships, and resilience.

Maybe we could use some of that in our work in a more positive lens about let's celebrate what's going on here with our diversity and the beauty that we bring as faculty members. We grow in our own identity in doing that. I just feel sometimes the negative screams and the positive whispers, like Barbara Fredrickson, it's time for some more positive stuff going on here. This is beautiful!

[Discussion Leader]: ....We've talked about having to be expansive in these models. [Participant 1], I'm back thinking about your question .. as part of your MHPE and your experience as a military physician that the dueling professional identities when you have more than one profession. ....

[Participant 1]: ... that was the spark. I haven't really explored that too much beyond that.

I'm curious, you have mentioned some of your look at the literature. .... there's no definitive definition of identity formation and the overlap of professionalism. .... there are some curricula that are definitively designed to impact professional identity formation, but the majority of things are done for something else. Then after the fact, we'll go back and take a look and say how did this affect someone's professionalism or professional identity formation. It's just been challenging to ... take a look at that space because of all those different variables.

[Discussion Leader]: I would say that one of the hard but liberating parts is to choose one, and to understand the risks of making that choice. And to be fully ready to defend yourself... When you submit a paper and say we're going with this model, ..everybody wants to tell you why that's wrong. It's in those conflicts that you clarify why this model fits and where it doesn't fit and what the up sides and down sides are...My experience has been it's very clarifying to choose one model for good reasons and go with it over time, understanding and being flexible around that.

Again, this was the model that made sense in the context. The reason I shared the case about the professionalism remediation is that this model helped me resolve an issue that was otherwise unresolvable .... We needed to decide if this one student should be a physician or not and then it kind of went from there. That's my soapbox. .... Students start to diverge from their peer group as they professionalize into a group, which is part of the challenge of having control groups around this.

[Participant 2]: I have a problem with the threats to validity that we face in this. You can educate all you want. Do as many of these essays and give them coaching. But they're working against, as [Participant 9] said, the environment in which they live as individuals and where we've sent them for training in their clinical domains. Particularly, probably even more of a dilemma as we think about that threat at the resident level. So, I guess if I'm thinking about what I want a control for or what other variables do I want to take a look at, it's got to be the learning environment. I've got to know about if we're increasing their legitimate peripheral participation abilities but there's the wall that keeps them from moving forward, we can't say our curriculum made a difference or our coaching made a difference, or that they actually grew if we don't know something about the context.

[Participant 9]: I think we need effect sizes. So, am I better off spending 100 hours building a better curriculum or am I better off spending 100 hours advocating to my student legislature? Or am I better off spending 100 hours doing pre-K and K outreach groups to disadvantaged groups in my community or whatever? There's a serious question in all of that. There's also an identity question in what is my employer value and what will they support. Right now, it's seen as many patients as you can and just keep

doing that. But if we really wanna bend this curve, that's not the right answer. I don't know. So, the effect size of how much difference can I make by making the best curriculum in the country versus how much effect size I can have by passing a law or a policy. I think it's relevant to professional identity because most physicians generally speaking don't see anything other than patient care as their lane sort of. That's a bit of a generalization but I think broadly true.

[Participant 9]: I think there is a real question buried amidst the existential components there.

[Discussion Leader]: Absolutely. ... I do think that one of the things just to be absolutely clear when we do PIEs, our lens is that it's an individual experience. It's something that happens within the individual with context and outcome and hidden curriculum all influencing that. That's a decision. You could take a research approach where you measure .. and control for the learning environment. There are good strategies to do that. That might be something we have to do.

[Participant 2]: I just didn't want us to leave it out. If we focus too much on the intervention but you're still producing that intervention in a context that we need to know more about.

[Discussion Leader]: ...I think one of the things I really appreciate about measuring it at the individual level is to show the trajectories. To show that individuals are different. That in general medical school leads to better more internalized professional identity as a physician, one would hope. Because it would be very pessimistic to think spending four years of medical school didn't influence your identity. It also identified that people come to us already formed. Isn't that interesting? Where does that come from? These are all questions.

Then in residency similarly. ... I will predict, we will show that residency flattens out the normal what would be considered a ...developmental curve. Residency is all about tribal identity. So, if what you're trying to get people to do is to grow as principled reasoners, it's not until the end of residency where they even really...unless they're really strong individuals and can fight the socialization, most measures of moral reasoning in residents flattens. That may be normal and that's normal and we may have to do that to make good doctors, but that's a research question. I'm not sure but we certainly do it. That's a context issue.

[Discussion Leader]: We will definitely keep this group together electronically for sure. Summarize this conversation...actually, we'll do a summary of the whole day so that it'll...

[Participant 9]: [Discussion Leader], I think actually that would really help summary of the day, summary of the group. Probably as we read through that, there may be a few items that bubble to the top. That's something we're at a place we could start tackling. Yeah.

[Discussion Leader]: I don't anticipate that we're all gonna find a single research project to join in on, but I am hoping that people will consider scholarly work in this domain. It's certainly wide-open space.

[Participant 8]: I was thinking about what [Participant 5] and [Participant 3] were talking about with respect to trying to incorporate more theory behind non-majority ideas into the model, the professional identity formation model. I was just looking back at a paper I had written 19 years ago in grad school about self-authorship in the professions and incorporated some Ortiz and Rhodes ... theory. Just thinking maybe there would be a way to try to rework this and think about whether we could bring in some more modern theories about identity development ....

[Discussion Leader]: I wanna just remind people, if you scratch the surface on this identity formation, this goes back to those studies that everybody critiqued in the 1940s and 50s where they studied a bunch of Harvard graduates for a few years.

[Participant 2]: ... I kept thinking about it this whole time.

[Discussion Leader]: They were all white men that were at an elite institution and a lot of sort of these basic frameworks are really based on that early studies. I have to say that I've been following this for decades because I was a feminist in the 70s. There was a lot of critique and pushback on those basic models of adult development. Those models have held up. So, feminist critique, critical theory critique, these models just fundamentally, not the gory detail, but the fundamental models of adult development of moral development. The Kohlbergian model, Kohlberg moral reasoning, those have actually been pretty hardy.... I do think we can use them to make them more meaningful in the work that we do. We're trying to make sure that all physicians have the opportunity to develop their full capacities in very difficult times. That's my soapbox. Any last thoughts?

[Participant 2]: [Participant 1] may recognize the name Sebastian Uijtdehaage from Uniformed Health Services Program. At one point he became concerned about measures that required the ability to write. So, we did a little study looking at if you ask the same questions but allowed them to respond orally as opposed to in writing, would you get a different outcome? It was an admissions study. So, I think that's still an interesting question. In looking at the essays that we did in the character essay contest and who wrote them, I think had we asked them to take their iPhones and record

that essay, we would've had a huge number of submissions. I do think there's something there about instrumentation that is probably still worth thinking about as a study.

[Discussion Leader]: Absolutely. In the medical school population, we just kind of made this decision that these are such highly educated folks that we would start with written work, but you're right. A lot of the literature really, really suggests that the ability to communicate your thoughts and feelings in writing is not uniform. So, we need to give people multiple ways to do that.

[Participant 2]: I think the assumption that physicians are good writers is probably questionable.

[Discussion Leader]: I know. Sometimes it makes me giggle but I couldn't write until I was 40 years old because I couldn't spell. I had significant dyslexia and until Word processors and spellcheck, I wouldn't be willing to do it. So, I wanna thank everybody. Like I said, we'll be summarizing the day. We're hoping to do this kind of a conference annually. This our first. I invite everybody to stay close. We will put everybody on our mailing list so that anything that we produce will be shared. I really do invite everybody to keep asking questions and engaging. That's how we're gonna move this forward. ....Thanks for your time and deep engagement.

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