

## CHAPTER 4

# Theoretical foundations of trust and entrustment in health professions education

Brian C. Gin, Ylva Holzhausen, Natasha Khursigara-Slattery,  
H. Carrie Chen, Daniel J. Schumacher, Olle ten Cate

### Abstract

The purpose of this chapter is to conceptualize trust within the context of entrustment in clinical education—to clarify what its purpose is, what its components are, how decisions about it are made, and what other forms of trust it relates to. In a general context, trust is a ubiquitous and intuitive construct that emerges within relationships, enabling individuals to cooperate and collaborate to perform tasks that they might not otherwise be able to perform alone. The trust specific to entrustment emerges from the interdependent goals of patient care and trainee learning, creating reciprocity between supervisor and trainee. Starting from a definition of trust in which risk assessment is central, proposed by Mayer et al. in 1995, additional details are added to conceptualize entrustment's unique form of trust. Considerations include contrasting the trustworthiness of clinical trainees with that of general trustworthiness, and consolidating the factors that influence entrustment decision-making. The connections between entrustment and other forms of trust within the patient–supervisor–trainee triad are also considered: trainee trust in their supervisors, and patient trust in trainees—including entrustment's role in ensuring patients' presumptive trust in trainees is justified. A unified model of entrustment is presented that incorporates these dimensions of trust and their theoretical conceptualizations.

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## Authors

- Brian C. Gin, MD, PhD. University of California San Francisco, San Francisco, California, USA. Correspondence: [brian.gin@ucsf.edu](mailto:brian.gin@ucsf.edu)
- Ylva Holzhausen, PhD. Charité-Universitätsmedizin Berlin, Berlin, Germany.
- Natasha Khursigara-Slattery, MD, MEHP. Mid-West Intern Network, University of Limerick, Limerick, Ireland.
- H. Carrie Chen, MD, PhD. Kaiser Permanente Bernard J. Tyson School of Medicine, Pasadena, California, USA.
- Daniel J. Schumacher, MD, PhD, MEd. Cincinnati Children's Hospital Medical Center/ University of Cincinnati College of Medicine, Cincinnati, Ohio, USA.
- Olle ten Cate, PhD. University Medical Center Utrecht, Utrecht, the Netherlands and University of California, San Francisco, USA.

## The purpose of trust within the concept of entrustment

Trust is intuitive—everyone knows what trust is—yet a unifying definition of trust evades description. Definitions of trust<sup>1</sup> appear to take various forms dependent on context and application. As such, considering trust's purpose is a prerequisite to conceptualizing it in the context of entrustment.<sup>a</sup>

Broadly considered, trust emerges in response to needs for social cooperation in specific settings and relationships. Trust emerges in relationships of all kinds—from a child dependent on their caregiver, to coworkers bound toward a common goal, or even to strangers walking and driving past each other at a stoplight. Trust is not uniquely human; it appears to emerge in animal relationships and societies as well, and perhaps between all sentient<sup>b</sup> beings that are interdependent, or at least expect something of one another. Trust appears to enable individuals to cooperate or collaborate to achieve more complex goals than they may be able to reach on their own.<sup>2,3</sup> It also appears to reduce the complexity individuals face when operating within a complex environment, and to contend with the myriad of outcomes that they cannot directly control.<sup>4</sup> Trust, whether instinctual or learned, appears to be a foundational part of development that allows an individual to function within relationships, social groups, and larger systems.<sup>5</sup> In the clinical learning environment, trust is necessary for patients, supervisors, and trainees to navigate the sometimes contradictory goals of delivering safe and consistent patient care versus educating trainees who arrive with a wide range of experience.<sup>6</sup>

The purpose of trust in clinical learning is to support safe and standards-based patient care in conjunction with trainee learning. A supervisor's entrustment of a trainee with a task is a multifaceted decision that enables them to delegate a specific level of responsibility for patient care to the trainee. The entrustment concept operationalizes this trust to deliver a framework applicable to both formative and summative assessment. Lower-stakes entrustment includes supervisors' so-called ad hoc entrustment decisions—day-to-day decisions about how much supervision to provide trainees in actual practice scenarios. Summative entrustment captures higher-stakes decisions training programs make about trainees' readiness for advancement in clinical responsibility. Indeed, trust and entrustment have recently become a major component of the discourse in health professions education and assessment.<sup>6</sup> While entrustment decisions vary in scale and scope, they share a common requirement: for assessments based on supervisor trust to be valid, there must be transparency around how trust is defined and how trainee trustworthiness is determined.

## Trust and risk

Differences in definitions of trust include whether trustworthiness is distinct from trust, what trustworthiness is, and whether trust implies reciprocity.<sup>7</sup> Despite these differences, most definitions of trust appear to involve the assumption of risk or vulnerability by the trustor to be subject to or dependent upon future action of the trustee. Consistent with this common thread, the entrustment literature (and other literature on trust in clinical settings) appears to most frequently cite the definition of Mayer et al.: 'willingness of a party to be vulnerable to the actions of another based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party,'<sup>1</sup> or, in short, 'willingness to be vulnerable to another party who cannot be monitored or controlled.'<sup>8</sup>

<sup>a</sup> Validity frameworks also advocate for articulating the purpose, intended interpretations, and consequences of an assessment as a prerequisite to its design<sup>68</sup>—including one operationalizing trust as a form of assessment (i.e. entrustment).

<sup>b</sup> Sentient, since they must be able to make a decision (or not) to trust. Note that the decision need not be conscious.

If entrustment derives from the trust a supervisor has in a trainee to perform a clinical task for a patient, then the vulnerability or risk that the supervisor assumes depends inversely upon the trainee's ability to perform the task well. Yet trust cannot be about risk and vulnerability only. After all, placing a bet also entails determining and assuming risk—but betting on someone is not the same as trusting them.<sup>c</sup> For a supervisor's assumed risk to amount to trust, it must also include specific beliefs about the trainee's trustworthiness, and occur in the setting of a trusting relationship with the trainee.

## Trustworthiness

Specific requirements for a trustee's trustworthiness distinguish trust from merely being an exercise in risk management. A trustor must not only assess the risk posed by delegating a task to a trustee but also be motivated to accept that risk based on belief in the trustee's *trustworthiness* to perform that task. Per Mayer et al. the characteristics of trustworthiness fall into three factors: *ability*, *benevolence*, and *integrity*.<sup>1,8</sup> A trustee's *ability* and *integrity* may also be assessed by a bettor, investor,<sup>d</sup> or actuary, but *benevolence* is a characteristic that appears to set trust apart from these other forms of risk management. Belief in the benevolence of a trustee means that the trustor believes the trustee will approach a task with their best intentions—in the case of entrustment, this is the shared (and primary) goal of patient care, and the secondary goal of learning and self-improvement.

When considering the trustworthiness of trainees in the clinical learning environment, additional features beyond Mayer's three factors must be considered. Ten Cate and Chen developed a framework specific to trainee trustworthiness by examining how supervisors evaluate trainee characteristics to make entrustment decisions. Synthesizing findings from empirical studies, they described five themes: *agency*, *reliability*, *integrity*, *capability*, and *humility*—called the A RICH model (Table 4.1).<sup>9</sup> Considering how Mayer's general trustworthiness overlaps with A RICH, *ability* and *integrity* tie directly to *capability* and *integrity*. *Benevolence*, on the other hand, manifests in multiple A RICH themes—in *reliability*, 'conscientious behavior driven by a sense of accountability and responsibility' to patients; in *integrity*, 'decisions ... motivated by concern for and made in the best interest of patients'; and, in *humility*, 'receptivity to insights of patients and co-workers.'

Despite their overlap, a defining feature that distinguishes trainee trustworthiness from general trustworthiness is the key role that trainee *humility* plays in entrustment. In entrustment, the supervisor has the option to intervene in the performance of the clinical task (see Figure 4.4 and the final discussion below), which is not generally the case with all forms of trust. This places a degree of responsibility on the trainee to seek help when necessary, based on understanding their own limitations. A trainee's humility reflects both their willingness and effectiveness to utilize their supervisor's support in a way that balances patient safety with their own growth, reflecting an (implicit or explicit) agreement inherent to clinical entrustment. Indeed, empirical studies by

<sup>c</sup> While risk and vulnerability may be necessary for trust, they are not sufficient. Trust cannot be solely about vulnerability and risk, even if related to the accomplishment of tasks that are critically important to the trustor. For example, an investor may assume risk by acquiring equity in an entity which they do not trust, with the hope of nevertheless achieving a positive return. In this scenario, the investor may fulfill Mayer's definition of trust by becoming vulnerable to another party to 'perform a particular action important to the trustor,' yet the investor has made a bet, rather than putting trust in the entity. Similarly, in the context of clinical training, betting on someone would not be the same as trusting them.

<sup>d</sup> While financial/investment advisers and portfolio managers may have the 'fiduciary responsibility' to act in the best interest of their clients, the same cannot be said of investors in general. For instance, when investors participate in 'short selling,' they are betting on the failure of a company's stock.

**Table 4.1:** Dimensions of trainee trustworthiness: the A RICH model.<sup>9</sup>

A Agency	R Reliability	I Integrity	C Capability	H Humility
Proactive attitude toward work, team, safety and personal development that includes awareness of and acting upon the need for action even when outside of the strict definition of one's responsibilities and practice of adaptive expertise. Agency can manifest within the context of one or more of the other four factors	Consistent, predictable, and conscientious behavior driven by a sense of accountability and responsibility	Truthfulness, benevolence, and patient-centeredness, where expertise is employed to benefit patients and decisions are motivated by concern for and made in the best interest of patients	The ability to perform a specific task in a variety of contexts and within an appropriate time frame, requiring a reasonable understanding and overall view of the clinical situation and ability to communicate and work effectively with others within a system	Discernment of one's limitations; willingness and ability to ask for help and feedback; receptivity to insights of patients and coworkers; and ability to learn and develop from mistakes, feedback, and the expertise of others

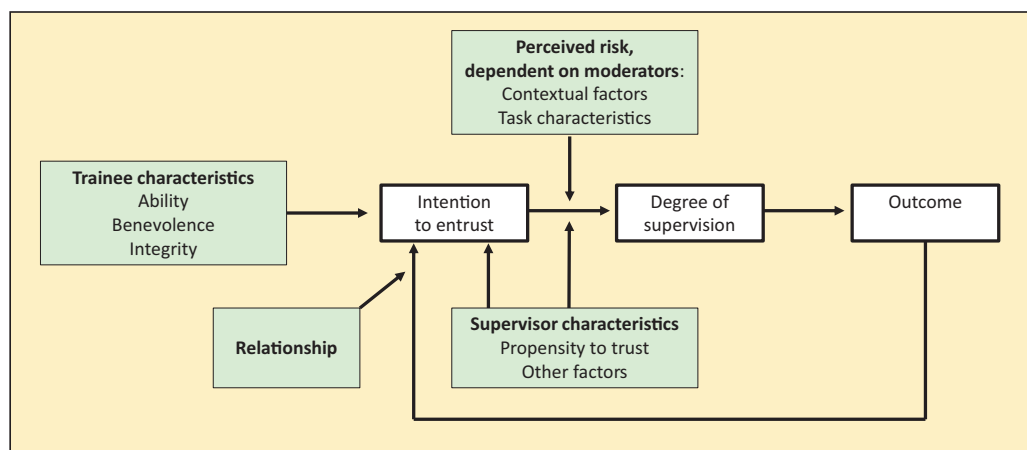
Schumacher et al. and others have demonstrated trainee humility to be a foundational feature of clinical entrustment.<sup>10,11</sup>

### Trusting relationships

In the context of entrustment, a trusting relationship and mutual trust arise from the paired goals of patient care and learning—which are important not only to the trustor (supervisor) but also to the trustee (trainee). The optimal level of trust balances risks to patient care (which might drive more supervision) and opportunities for trainee growth (which might impel less supervision). Even if learning were not included, the shared goal of patient care would be sufficient to necessitate reciprocity: the trainee also assumes risk when being entrusted—risk that they will receive the appropriate amount of support from the supervisor to perform the task, and that the supervisor will provide supervision appropriate for their experience and ability. As such, the trainee must also trust their supervisor, and thus reciprocity appears to derive from the interdependence of supervisor and trainee for patient care and learning.<sup>12,13</sup> Indeed, several empirical studies support this finding, suggesting that trusting relationships are also a key feature of supervisor–trainee trust.<sup>14,15</sup> Within the context of clinical entrustment, it appears that the formation of a trusting relationship reflects the reciprocity inherent in depending on each other to achieve these common goals.

### Entrustment decision-making

In addition to the trainee's trustworthiness and the relationship between supervisor and trainee, additional factors that contribute to entrustment decisions include a supervisor's propensity to trust, the context of entrustment, and characteristics of the task under consideration.<sup>16–20</sup> The supervisor's propensity to trust relates to their personal risk tolerance and individual



**Figure 4.1:** Adapted from the expanded Holzhausen model of trust.<sup>16</sup>

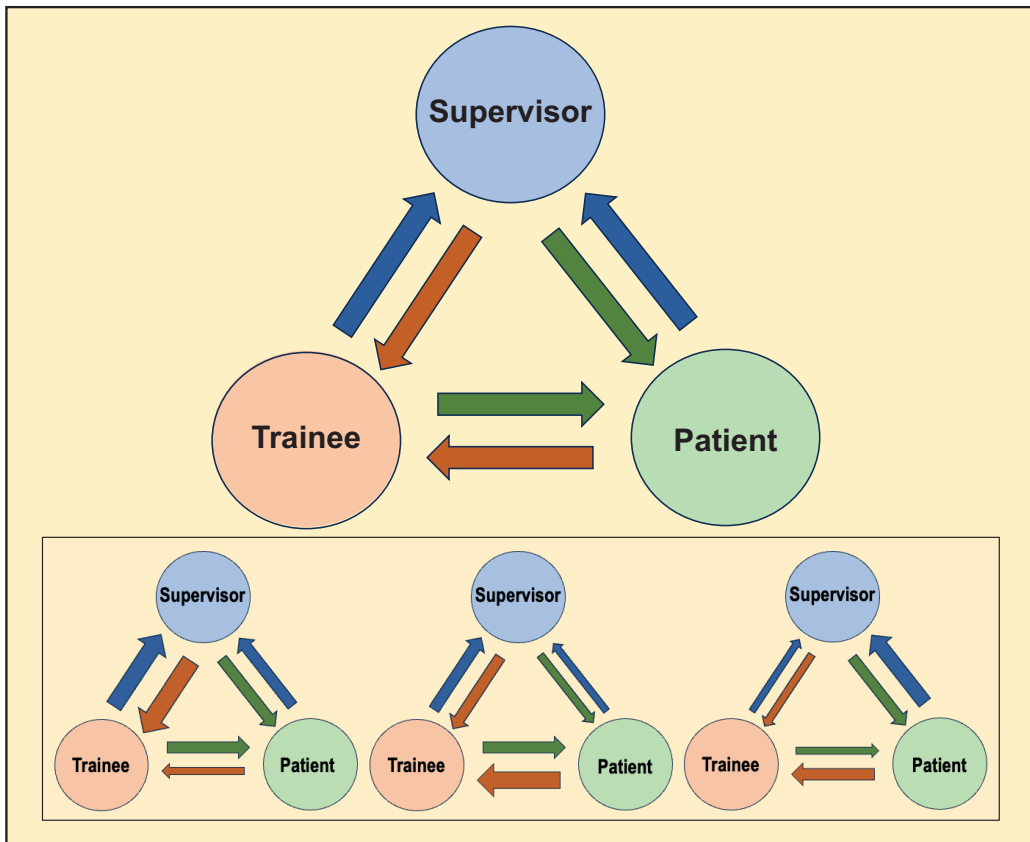
estimation of risk. This tolerance may be shaped by emotion<sup>21</sup> and by the supervisor's subjective assessment of the overall situation shaped by their personal experiences and emotions, or *perezhivanie*<sup>22</sup> (also see Chapter 2). The relationship between supervisor and trainee may further modulate this tolerance, via shared risk and responsibility toward achieving common goals. The relationship factor also depends on longitudinality<sup>23</sup> and the accumulation of shared experiences.<sup>24</sup> Indeed, cumulative interactions can move entrustment decisions toward grounded trust (based on accumulated evidence of trustworthiness) as compared to initial (swift) trust (based on initial impressions or scant data), or presumptive trust (based on credentials alone).<sup>25</sup>

Contextual and task factors modulate risk via considerations external to the supervisor and trainee, such as the logistical availability of support, patient load/census, and the complexity and/or acuity of the patient's presentation. Even so, these external factors are shaped by subjective experiences of them. For example, perceptions of complexity may differ between an experienced supervisor and a novice trainee.<sup>26</sup> As such, all factors may interact toward determining entrustment. Adapting Mayer et al.'s model of trust to entrustment, and combining this model with insights from Hauer et al.<sup>17</sup> and Cianciolo et al.,<sup>2</sup> Holzhausen et al. and Conroy et al. described how these factors are interrelated and can lead to a positive feedback cycle of trust development between supervisor and trainee (Figure 4.1).<sup>16,27</sup> Ultimately, entrustment need not only be a decision that occurs in the mind of a supervisor but can also be considered a negotiation between a supervisor and trainee, and their environment.

Trust and entrustment decisions by supervisors inherently include personal perceptions and thus a subjective component. While subjectivity cannot be avoided in expert judgment and decision-making, a distinction can be made between legitimate subjectivity and unwanted bias.<sup>28</sup> Prejudice and irrelevant influences should be avoided through awareness training and shared decision-making for both high and low-stakes entrustment (see Chapters 17 and 21).<sup>29</sup>

### Beyond supervision—a triad of trust in the clinical learning environment

Entrustment does not occur in a vacuum but rather within a web of interrelated relationships, motivations, and vulnerabilities in the clinical learning environment. While entrustment within the supervisor–trainee dyad represents only a small piece of this puzzle (i.e., a supervisor's trust in a trainee), it is related to, and is dependent on, other manifestations of trust as well.



**Figure 4.2:** Variations of trust relationships in the triad of clinical supervision.

Including the patient in the supervisor–trainee dyad creates a triadic relationship held together by distinct forms of trust needed to facilitate patient care and trainee learning. Patients need to be able to trust those upon whom they are dependent, which includes trainees, to be able to provide the care they need in a safe, effective, caring, and honest manner.<sup>30–32</sup> Trainees need to be able to trust their supervisors (and overall training program) to provide the support they need when caring for patients safely.<sup>33–35</sup> Finally, reflecting entrustment, supervisors need to be able to trust trainees to perform clinical tasks without supervision when appropriate, and to inform the supervisor when they need assistance.<sup>10</sup>

Figure 4.2 shows the interdependent triad of trainee, patient, and supervisor trust. The width of the arrows represents the strength of trust, which can vary in six directions. Occasionally patients may have more trust in the trainee than in their supervisor, but it could be the other way around. Likewise, a trainee might trust their supervisor more, or less, to support them if needed and to provide psychological safety.<sup>36</sup> A supervisor might know and trust a patient to be willing to work with a trainee or not, and, finally, the supervisor might trust a particular trainee more, or less, with this patient and this activity. All dynamics together affect the supervisor’s ad hoc decision to entrust the trainee with the activity.

Two components of this triadic relationship closely related to entrustment include trainee trust in supervisors and patient trust in trainees—explored further below. Other aspects of the triad are also considered in Table 4.2. The triadic relationship itself lies within a broader landscape of interprofessional and institutional trust.<sup>37–40</sup>

**Table 4.2:** Various directions of trust in the clinical learning environment in the trainee–supervisor–patient triad.

Trustor	Trustee	Aim of trust	Hypothetical quotes from a trustor reflecting trustee trustworthiness	Hypothetical quotes from a trustor reflecting their decision to trust	References
supervisor	trainee	entrustment with a clinical task	'this trainee seems ready for this responsibility'	'I can leave the room,' 'I'll recommend a summative entrustment decision for Level 4'	17,20,25,55 56,57 15,24,48,58
trainee	patient	receiving feedback	'this is a thoughtful patient with a valuable perspective'	'I'll ask for feedback from the patient,' 'I'll use that feedback and share it with a preceptor'	53
patient	supervisor	receiving good care	'this doctor knows what they're doing,' 'previous decisions were right'	'I'll do whatever they recommend,' 'I can reveal honesty and confidential information'	59,60
supervisor	patient	expecting honesty and cooperation	'this patient is highly cooperative,' 'understands my questions,' 'gives sensible and honest answers,' and 'will do what they promise to do'	'I will propose and discuss all reasonable diagnostic and therapeutic options,' 'I will make an agreement on therapeutic adherence and will ask the patient to report any problems to me'	61
patient	trainee	receiving good care	'this trainee seems to know what they're doing,' 'is honest about what they cannot yet do,' and 'knows when and how to ask for help if needed'	'I will consider them to be my doctor'	31,32,40,62
trainee	supervisor	receiving good guidance/instruction, receiving unbiased and fair ratings/assessment, receiving adequate autonomy, supervisor is available or accessible if needed	'this preceptor has impressive content expertise and experience,' 'is benevolent toward patients and toward me,' 'will not deceive me,' and 'keeps their word'	'I'll do what the preceptor asks me, even if I'm not fully convinced,' 'I'll ask for honest feedback,' 'I'll report that careless mistake I just made'	33,34,41,44,47
trainee	trainee	maintaining patient safety while learning via self-regulation and balance between independence and help-seeking	'I don't need to convince myself that I'm a legitimate provider, yet at the same time I know I also don't need to know everything'	'I know that I am able to perform this task without supervisor assistance, but if I ever get outside of my comfort zone, I'll ask for help'	63,64 26,65,66 67



### Trainee trust in their supervisor

While decisions to assign clinical responsibility may fall on a supervisor, the trainee's trust in their supervisor may affect their motivation to fully engage in those responsibilities, and their ability to learn from them. Trainees need to be able to trust that their supervisor will support them to care for patients safely, and to evaluate their deficiencies in a manner that leads to learning rather than rejection or rebuke.<sup>33,34,41</sup> While trainees' acknowledgment of their own limitations is a key component of their trustworthiness,<sup>10</sup> this candidness must be met with the expectation that supervisors will respond positively to trainees' display of vulnerability. This is not the case by default, as trainees may struggle with the tension between a desire to perform well but also to receive feedback on their true level of ability.<sup>42</sup> Trust between trainees and supervisors, along with a shared understanding of the purpose of assessment, may help to alleviate this tension. Indeed, trainee trust in their supervisor, and their belief in the supervisor's benevolence—a ubiquitous factor in trustworthiness—supports their acceptance of feedback.<sup>43–46</sup> Such a reciprocal relationship has been described by Telio et al. as an 'educational alliance' akin to the 'therapeutic alliance' supporting openness between patients and providers.<sup>47</sup>

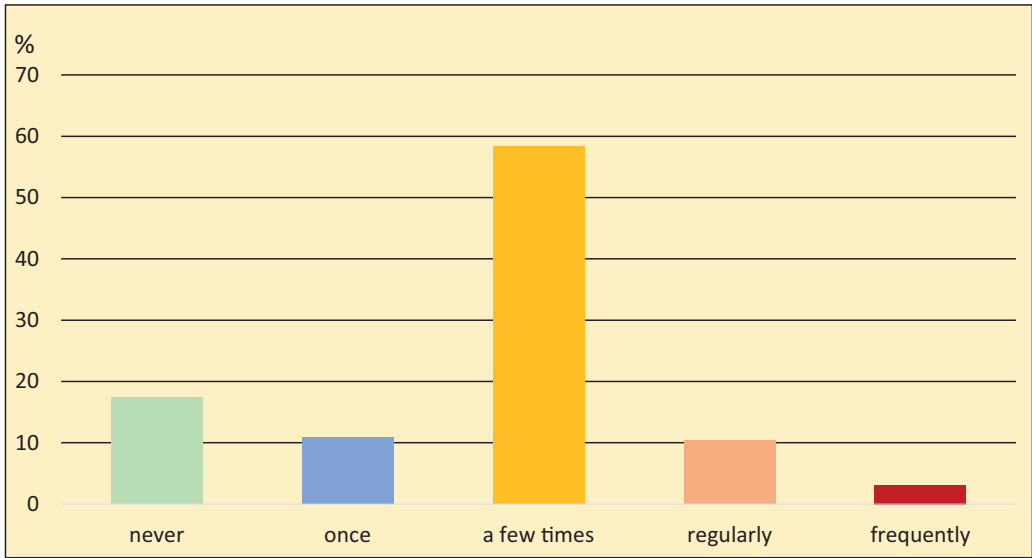
With respect to entrustment, trainees must also trust their supervisors to make appropriate entrustment decisions that enable them to both learn and take care of patients. Empiric studies suggest that trainees who perceived their supervisors' trust to be appropriately matched to their self-perceived trustworthiness experienced subjectively better learning and engagement with patients and medical teams.<sup>48</sup> When trainees believed they were trusted less than they deserved, they often felt detached from their patients, less motivated to learn, and micromanaged.<sup>15</sup> At the other extreme, Klasen et al. have recently explored the concept of allowing trainees to fail. While trainees could view these scenarios as representing a lack of support, they also perceived them to be potentially valuable learning opportunities, colored by their perception of their supervisor's intentions—intentions that may be shaped by the trainee's trust in their supervisor.<sup>35</sup>

### Patient trust in trainees as care providers

While supervisors can make decisions to trust trainees (or not) based on grounded trust (i.e., well-documented past performances and interactions), patients are not privy to the same information<sup>e</sup> or choice. Since patients cannot directly oversee trainee providers, training institutions have the obligation to ensure that patients' presumptive, and indeed obligatory, trust in trainees is justified. Despite this obligation to patients, program directors occasionally decide to graduate trainees who they would not necessarily trust with their own family members.<sup>49</sup> In informal polls across various audiences at workshops and conferences in 2022 and 2023, ten Cate asked the question: 'Have you ever *personally* signed off for completion of a program or rotation, while not fully confident that the trainee had met critical objectives?' Many of the 329 respondents said they remembered such cases (Figure 4.3). The entrustment concept is intended to address this issue by providing transparency in trainee trust—in 'educating trainees to be worthy' of their patients' trust.

Patient trust in providers has been a well-studied area in the literature, with multiple instruments designed to measure this construct. In these studies, patient trust in providers is most often interpreted as the patient's perception of their provider's trustworthiness. Mayer et al.'s model has been used in this context as well, as many models include the three factors of ability, benevolence, and integrity in some form.<sup>11</sup> For example, Greene et al. describe dimensions of

<sup>e</sup> Also, trainees do not have online reviews that licensed professionals usually may have (and whether such reviews are reliable is also a matter of contention).



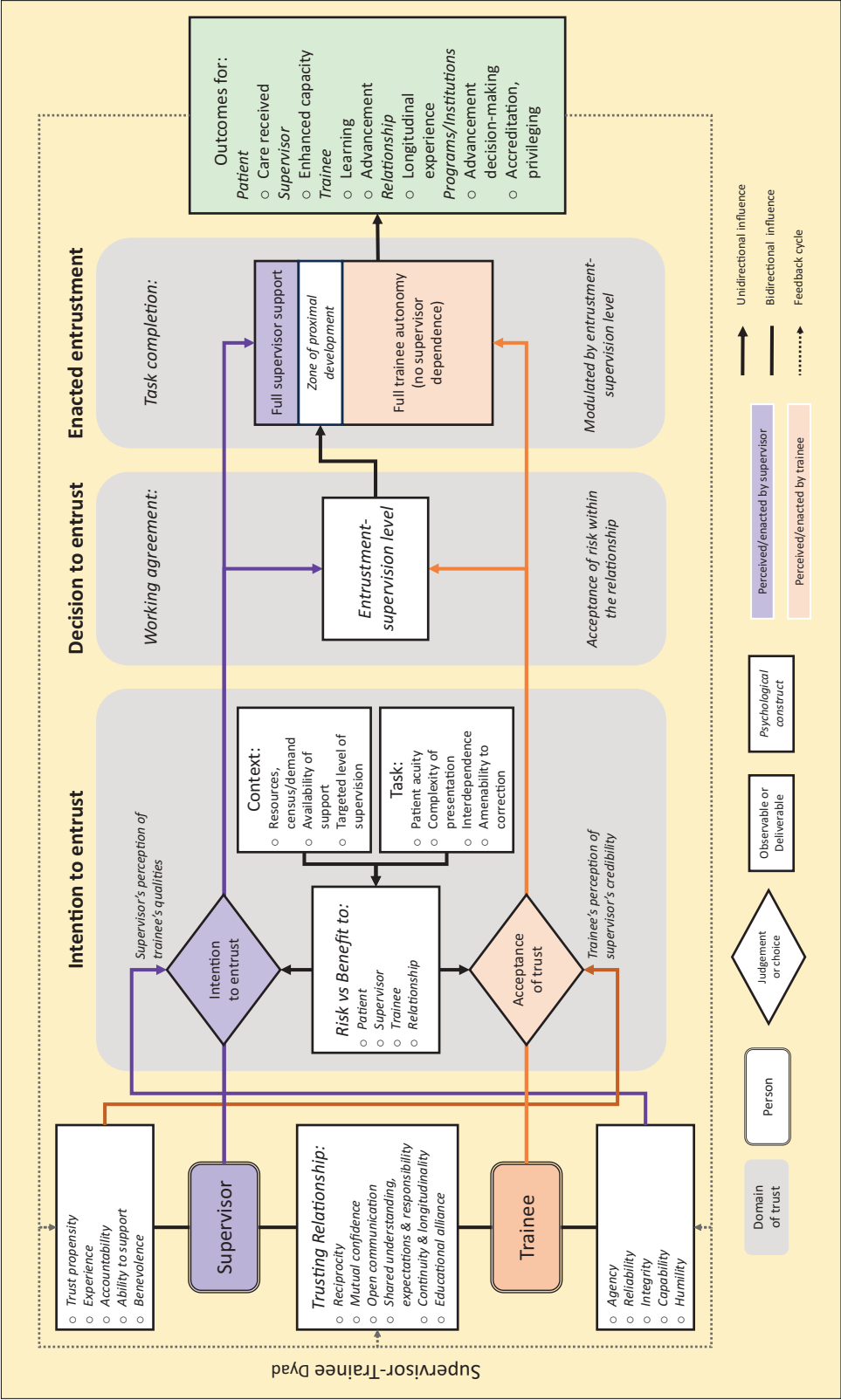
**Figure 4.3:** Percentage of clinical educators answering the question: ‘Have you ever *personally* signed off for completion of a program or rotation, while not fully confident that the trainee had met critical objectives?’ (N=329, across 10 occasions).

competence, caring, and communication.<sup>30</sup> Despite the qualitative distinctness of these factors, quantitative studies indicate patient trust is a unidimensional construct, suggesting inextricable overlap between these factors.<sup>39,50</sup>

The subset of literature on patient trust in providers who are specifically trainees appears to be less well developed. Bonds et al. explored factors associated with trust in resident physicians in a primary care setting, finding that patients’ trust in trainees was also strongly dependent on the patients’ trust in the hospital system with which the trainees were affiliated.<sup>40</sup> The role of institutional trust was also seen in a study of trainees’ reflections on their interactions with patients, which also hinted at reciprocal trust between patient and trainee that facilitated patients’ willingness to be vulnerable.<sup>51</sup> Tiyyagura et al. explored how ongoing parental concerns over trainee inexperience may limit supervisors’ intentions to allow trainees to perform procedures in the pediatric emergency department, despite reassurances about adequate procedural supervision.<sup>52</sup> El-Haddad et al. have explored the approach of involving patients in entrustment decision-making and considering patient expectations of trainees in the performance of patient care tasks.<sup>31,32</sup>

### A unified model of entrustment

We conclude by presenting a unified model of entrustment that summarizes the key features of our discussion in this chapter (Figure 4.4). Trust is defined by Mayer et al. as the acceptance of risk within a relationship,<sup>1</sup> which when applied to entrustment refers to a supervisor’s trust in a trainee. The dual goals<sup>7</sup> of patient care and learning create reciprocity in the trust between supervisor and trainee. Not only does a supervisor assess the trustworthiness of the trainee (by assessing the trainee’s agency, reliability, integrity, capacity, and humility)<sup>9</sup> but also the trainee accepts (or rejects) the trust that they receive from their supervisor (by assessing their supervisor’s credibility, ability to provide support, and benevolence).<sup>33,34,53</sup> This initial step represents an ‘intention to entrust’,<sup>17,16</sup> which is determined in relation to the perceived risk and benefit to stakeholders in the



**Figure 4.4:** A unified model of entrustment, based on several models including Mayer et al.,<sup>1</sup> Castelfranchi et al.,<sup>7</sup> Holzhausen et al.,<sup>16</sup> and ten Cate and Chen.<sup>9</sup>

triadic relationship between patient, supervisor, and trainee. These risks and benefits themselves are influenced by context and task, related to the availability of resources and complexity of the patient presentation.<sup>17</sup>

The ‘intention to entrust’ is followed by a ‘decision to entrust,’<sup>7</sup> which manifests as the entrustment–supervision level.<sup>54</sup> This decision is carried to patient care tasks as ‘enacted entrustment,’<sup>7</sup> where it modulates the amount of support the supervisor provides and the degree of autonomy the trainee experiences. The ability of the supervisor to intervene with task completion and to decide when to support the trainee is a characteristic that distinguishes entrustment from generalized trust (the latter in which a trustor is willing ‘to be vulnerable to another party who cannot be monitored or controlled’<sup>8</sup>). When supervisors interpose a gap between their level of support and the trainees’ prior experiences (or expectations) of autonomy, trainees may experience growth as they push themselves toward practice in this so-called ‘zone of proximal development.’<sup>25,54</sup> The outcome of ‘enacted entrustment’ feeds back on the triadic relationship (affecting each member as shown), while also influencing future entrustment decisions.

It is hoped that this formulation of entrustment and the discussions in this chapter provide clarity on the unique perceptions, circumstances, and forms of trust upon which entrustment depends—while suggesting a research agenda to further elucidate entrustment’s many facets.<sup>f</sup> By exploring these dependencies, entrustment can be considered not only as supervisor trust in a trainee but also as a complex social interaction set in the context of a reciprocal relationship—a patient-centered triad.

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<sup>f</sup> The bulk of empiric support for entrustment decision-making centers on trainee and task characteristics. As such, additional studies on other aspects of this model (including supervisor, relationship, context, and factors affecting trainee trust in supervisor) would be most welcome.

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