

How Clinical Instructor Behavior Affects Student Clinical Engagement From A Motivational Perspective

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Motivational Perspective

Author: Anthony W. Knight, PhD, MBA, CNMT, RT(N), FSNMMITS

Department of Radiology

University of Iowa Hospitals & Clinics

200 Hawkins Drive

Iowa City, IA 52242

Phone: (319) 356-2954

FAX: (319) 384-6389

Email: anthony-knight@uiowa.edu

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ABSTRACT

Given the close interpersonal nature of the student-clinical instructor (CI) relationship and the unpredictable and often stressful clinical environment in which they interact with one another, it is extremely important that clinical instructors understand how their behavior directly affects their students' motivation to engage in educationally important clinical activities. This article presents a review of the motivation literature grounded in self-determination theory with the goal of providing the reader insight into how clinical instructor psychological need-supporting/thwarting behaviors affect student clinical engagement. Specific need-supporting and need-thwarting behaviors are identified and discussed in terms of how they impact students' needs for autonomy, competency and relatedness. Recent research has revealed a strong connection between overall CI need-supporting/thwarting behavior and student clinical engagement. The author hopes to bring further awareness of the powerful psychological impact clinical instructors have on their students and to draw attention to the need for routine in-service programs specifically designed to teach CIs how to effectively employ psychological need-supporting behaviors and avoid psychological need-thwarting behaviors when working with their students.

Keywords: Clinical Instruction, Student Engagement, Student Motivation, Self-Determination Theory

INTRODUCTION

The impact an instructor can have on student learning and development can be profound (1-4). Umbach & Wawrzynski (5) suggest that instructors may play the single-most important role in student learning. This is especially true in health and medical education where its practice-based clinical component has more in common with traditional apprenticeships than the college classroom. While on clinical rotations, students learn by doing the job. Their clinical instructors (CIs) teach while doing the job. Students routinely spend a number of full working days in close contact with their CI during any particular clinical assignment. Contrast this to the two to three hours per week where multiple students interact with a single instructor at the same time that is typical of most college classroom-based education. The mere fact that students and clinical instructors spend so much more one-on-one time with each other would be enough to suggest that the nature and quality of the student-clinical instructor relationship takes on an increased level of significance in clinical education.

If one also takes into consideration the many unique situational factors that make the clinical learning environment foreign to students brought up in the classroom, one could certainly argue that the quality of the student-clinical instructor relationship is most likely the single-most important determinant of student success. It could also be argued that the burden of developing and maintaining this relationship should fall on the clinical instructor because of their familiarity with the world of clinical practice and the degree of knowledge and skill one needs to be successful in it. In the clinical setting, the nature of the relationship between students and their clinical instructors is a convoluted mix of role expectations. At various times the dynamic might be one of teacher/learner, supervisor/subordinate, expert/novice, coach/trainee, mentor/mentee and the switch between these roles can be swift and un signaled (6). The

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complicated nature of the student/CI relationship, and the relatively long periods of time the student and instructor interact with one another in an often unpredictable and stress-filled environment, significantly amplifies the degree of student dependency on the instructor's ability to maintain a safe and effective learning environment.

This review of the educational research literature will specifically focus on examining how CI behaviors affect levels of student engagement in clinical activities from a motivational perspective (a point of view that this author believes is too often overlooked).

THE UNIQUE NATURE OF CLINICAL EDUCATION

The clinical environment is different from the traditional classroom in a number of significant and important ways (7). The setting is primarily designed to deliver patient care, and as such, is one characterized by variability, unpredictability and a lack of continuity and consistency (8). Clinical learning opportunities tend to be unique and unstructured. They typically cannot be anticipated, manipulated or repeated (9). The primary focus of the clinic is on the patient, not the student. Patient care and safety are always the first priorities. The education of neophyte practitioners is a secondary concern at best. Teaching and learning are expected to take place within the parameters of daily clinical operations without compromising the quality of patient care and the efficient running of the clinic. Students' learning opportunities are more dependent on the clinic workload and mix of scheduled patient procedures than on any kind of pedagogically predetermined sequencing (10). All of the eccentricities of the clinical environment work against effective student learning and skill development which generally thrive in controllable consistent predictable repetitive settings at novice levels.

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Clinical instructors are expected to effectively blend two occupations, clinical practitioner and teacher, often within the same resource constraints and reward systems afforded practitioners who do not have teaching responsibilities. CIs must serve two sets of clients simultaneously; their patients and their students. And while most CIs are typically well prepared to perform their clinical duties, few are formally prepared to teach (11-15). Most clinical instructors are hired as staff technologists because of their clinical expertise. Only rarely will any of these individuals have had formal training in teaching methodology, learning styles or the effective evaluation of student learning and clinical performance. The faulty underlying assumption inherent in the practice of hiring expert practitioners to be teachers is the belief that competent clinicians, because of their job expertise, should be able to effectively facilitate students' learning of the appropriate knowledge, attitudes and skills needed to become competent clinicians themselves. McKeachie (16) maintains that expertise in a particular discipline is not sufficient to ensure good teaching. Expert clinicians will not necessarily grow into expert clinical instructors intuitively (6).

Not only are most clinical instructors underprepared to teach, many are expected to teach without any regard for their desire to do so. Clinical sites are often chosen based on factors such as the convenience of the clinic's physical location or its administration's willingness to take students rather than on the quality of the teaching opportunities available or the instructional expertise of their clinical staff (12). Clinical instructors are usually assigned to this role by their supervisors, or some other authority figure, without any opportunity to decline (17). It is seen as a job requirement rather than an elective. So unlike the classroom teacher who is typically both prepared and motivated to teach, many clinical instructors may be neither.

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The authenticity of the clinical component can be a strong source of motivation for students (18). Because learning takes place in the context of professional practice, students rarely question the relevance of what is to be learned (19). Students are also often motivated by the excitement of the clinical environment and the display of technical expertise and professionalism that the seasoned practitioners they observe model for them (20). It would appear that one could expect the motivation levels of the students beginning the clinical phase of their education to be extremely high. If this is indeed the case, it would seem that one of the primary objectives of the clinical educator would be to avoid doing anything that could possibly demotivate their students. If motivation is near peaked to begin with, there's only one direction it can go: down. Without a clear understanding of how their own behavior might affect their students' drive to succeed, unenlightened CIs are at risk of unintentionally impairing their students' professional development.

Ironically, formal assessments of current educational practice show that the addition of teaching responsibilities to a practitioner's job duties rarely comes with any opportunity to be properly educated on how to handle these additional obligations effectively (11, 13, 14, 15, 20). And as a result, a significant and important portion of a student's professional education is routinely put in the hands of underprepared and perhaps unmotivated clinical instructors who typically rely on their own lay-theories of education and motivation.

AN ASSESSMENT OF THE CURRENT STATE OF CLINICAL INSTRUCTION FROM A MOTIVATIONAL PERSPECTIVE

The findings of recent research clearly suggest the need for clinical instructor in-service education programs that serve to identify for attendees the specific behavioral guidelines that

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will help them become better educators in terms how they affect their students' motivation levels (21). This study, which examined the influence clinical instructors have on their students' motivation to engage in educationally important clinical activities, found that over 51% of the variance in students' engagement scores was directly related to how they were treated by their CIs. This finding may be especially surprising to the many who would assume that a student's own baseline motivation level is the most important determinant to how fully engaged a student is in the clinic; that if a student is disengaged and underperforming, it is all on the student. In this study of over 750 clinical instructors, the investigator found that 18% of the CIs evaluated had behavioral assessment scores placing them clearly in a range that identifies them as "demotivators" (22). These are individuals who students reported actually undermined their desire to engage in the clinical activities in which they knew full well they needed to participate in order to succeed. Students who evaluated demotivators reported working less hard, paying less attention, often just acting like they were doing something constructive, and generally felt more disappointed and frustrated than students who worked with CIs whose behavior they felt actually motivated them to do well.

If the findings of this quantitative multi-program-multi-institution-based study are indeed representative of the pool of clinical instructors currently practicing in this country, having nearly a fifth of a profession's CIs behaving in ways that are counterproductive and contrary to its students' best interests, is problematic to say the least and warrants the attention of healthcare education program officials everywhere. It appears there is a great need for educational interventions (e.g., in-service programs) that specifically focus on the relationship between the quality of a clinical instructor's interpersonal interactions with their students and their students' motivation to engage in educationally important clinical activities. The remaining sections of

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this article identify some of the principles and practices that would be appropriate to cover during such an education program.

A USEFUL THEORETICAL FRAMEWORK INFORMING EFFECTIVE CLINICAL INSTRUCTION

Self-Determination Theory (SDT) has been a popular framework with which to study student motivation and engagement (23). The robustness of SDT and its ability to explain and predict the impact of teacher behaviors on important student outcomes suggests that it is not only a powerful framework on which to base educational research but also everyday practice. SDT is especially useful when studying the dynamics of the student-instructor relationship because of its emphasis on the internalization of attitudes and values. According to self-determination theory, people seek to satisfy three basic psychological needs: the need for autonomy, the need for competence, and the need for relatedness (24). SDT theorists contend that overall psychological health and well-being requires the satisfaction of all three needs. The need for autonomy is defined as people's desire to have control over their own actions and to make their own choices. The need for relatedness is defined as the human striving for close personal relationships and having a sense of belonging. The need for competence refers to the desire to capably interact with one's environment and to bring about important outcomes and manage challenges (25). SDT postulates that the environment affects motivation through its influence on the individual's perception of autonomy, competence and relatedness, which in turn, leads to consequences (26). Supporting a person's psychological needs helps him or her internalize important values and perspectives and results in a shift from amotivation or controlled self-regulatory styles toward more self-determined and satisfying forms of motivation. Frustrating or thwarting the

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satisfaction of psychological needs tends to promote external regulation and amotivation (24).

Recent research provides convincing support for this motivational sequence (27).

According to SDT, socio-cultural context plays a significant role in the initiation and regulation of behavior (28). A person assigns meaning to various salient environmental factors which in turn greatly influence his or her behavior. These attributions tend to either promote or thwart self-determined behavior. Figure 1 identifies some the socio-cultural factors often employed in the study of student motivation, learning and development (29). Teachers are arguably the most potent influence in the socio-contextual mix because their position of authority gives them the power to manipulate, at least to some degree, all of the other factors listed on the table. Need-supportive teachers manipulate socio-contextual variables in such a way as to satisfy student needs for autonomy, competence and relatedness, while need-thwarting teachers create an environment that prevents the fulfilment of those needs.

Figure 1.

SDT-based research investigating the influence of teacher behaviors on student motivation has almost exclusively focused on the positive effects of psychological need supportive behaviors and interactions. Theorists group these behaviors into three clusters associated with each psychological need: autonomy-support, competence-support, and relatedness-support (19, 30, 31). Instructors can support a student's need for autonomy by creating opportunities for the student to take the initiative and make choices during learning activities that are designed around the student's own needs and interests. Autonomy-supportive instructors rely on non-controlling language, clarify the relevance of the material or skills to be

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learned and openly acknowledge the student's perspective and feelings (31). Autonomy-thwarting behaviors include the use of controlling language and directives, extrinsic sources of motivation (rewards and other contingencies), and blocks to any expressions of negative affect (31).

Research shows that autonomy-supportive teaching leads to better student outcomes in a number of important areas (30). When compared to students of controlling teachers, the students of autonomy-supportive teachers show higher academic achievement, greater conceptual understanding, more active information processing, greater flexibility in thinking, greater creativity, higher perceived competence, more positive emotionality and higher self-esteem (30). The literature also documents the strong relationship between an instructor's autonomy-support and his or her student's self-determination. Self-determined students, in addition to being higher achievers, show a preference for, and get more pleasure from, optimal challenge, hold stronger perceptions of self-control, hold stronger psychosocial beliefs, are more empathetic and sensitive to people's psychological and social needs, and behave in an autonomy-supportive fashion with others (31).

An instructor can support a student's need for competence by providing structure (23). Structure refers to the amount and clarity of the information that teachers give students concerning expectations and ways of achieving the desired outcomes. Instructors provide structure by offering consistent guidance and direction during learning activities and by offering task-oriented and personal control-enhancing feedback (31). Competence-thwarting behaviors are characterized by the presence of a chaotic learning environment. Competence-thwarting instructors provide little or no structure for the students. They behave in ways that leave the student to their own resources. Their communication with the student is confusing or

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contradictory and they often fail to clearly identify expectations or a means by which the student can obtain the instructional goals and objectives. An instructor is guilty of competence-thwarting when he or she offers learning activities that are not well thought out and forms of constructive feedback are either absent or ineffective.

Relatedness-support communicates psychologic availability and warmth and enhances interpersonal closeness (31). Relatedness-supportive teachers are viewed by students as being more positive and effective (32). Relatedness-support behaviors can be effectively divided into two subsets, verbal and non-verbal. Recognized non-verbal relatedness-supporting behaviors include smiling, eye contact, gesturing, vocal expressiveness and relaxed body posture. Verbal relatedness-support is associated with verbal indications of humor, praise, self-disclosure, initiation and inclusiveness (33). Wilson & Locker (33) found a low correlation between relatedness-supporting and teaching effectiveness behaviors. This gives credence to the claim that they are indeed separate constructs. Relatedness-thwarting strategies overtly manipulate or exploit the student/instructor relationship (19). Any behaviors that demonstrate a lack of concern for the student's well-being and self-worth or show negative conditional regard work to undermine a student's feelings of relatedness. Intimidation, humiliation, embarrassment, ostracism and rejection are hallmark signs of relatedness-thwarting behavior.

In one of the aforementioned studies (22), the investigator found that the majority of behavioral survey items that generated the greatest differences in student engagement scores when comparing CIs identified as motivators with those identified as demotivators were those associated with a number of very specific low-inference non-verbal behaviors that most people would likely consider unwelcoming and disenchanting. See Table 1 for a listing, in rank order, of the 10 items that best separated motivators from demotivators.

Table 1.

According to SDT, engagement is the publicly observable outcome of private unobservable motivational processes (32). Engagement is the smoke to motivation's fire. If one wants to evaluate internal motivational processes, it is logical to measure the observable indicators of engagement as outcome variables. SDT also recognizes the concept of disaffection: which is seen as more than simply the absence of engagement. Disaffection refers to the presence of maladaptive behaviors and emotions. Disaffected students tend to withhold effort, give up easily or resort to doing just enough to get by. They often feel burdened, controlled, frustrated, anxious and/or angry. Experiences that satisfy one's psychologic needs for autonomy, competency and relatedness tend to stimulate engagement and suppress disaffection. Experiences that impede the satisfaction of these three psychological needs tend to do just the opposite.

Reeve believes, along with other prominent engagement scholars (34, 35), that student engagement fully mediates the motivation-to-achievement relationship; that the observed direct effects of motivation on student achievement disappear when engagement is considered a predictor of positive outcomes (36). The implication is that there can be no other positive student outcomes without at least some degree of student engagement. If this is indeed the case, a valid measure of student engagement might be the single most powerful predictor of student success. Reeve (34) also believes that one of the reasons student engagement is important is because it is "a malleable student characteristic that is unusually open to constructive influences,

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such as teacher support” (p. 162). The malleable nature of engagement only adds to its usefulness for informing educational practice. When educators understand what kinds of variables affect student engagement, and learn how to effectively manipulate the variables under their control, they will be much more likely to facilitate student learning and development.

Factors that affect student motivation have been well established in the SDT literature (34). If engagement is the external manifestation of internal motivational processes, it logically follows that what affects student motivation affects student engagement. Reeves maintains that engagement arises from the same types of experiences that are believed to increase intrinsic motivation; experiences where students’ psychological needs are being met. Thus, instructors can increase student engagement by nurturing students’ needs for autonomy by providing autonomy support, their needs for competence by providing structure, and their needs for relatedness by providing interpersonal involvement.

Research are shown that instructor psychological need support can indeed affect student engagement (37). For instance, studies have found that teachers’ reports of the quality of the student-teacher relationship predicted levels of observed student engagement (38, 39).

Additionally, it has been shown that teachers who create respectful and socially supportive environments while providing students with challenging work promote student engagement (38).

HOW TO EFFECTIVELY MOTIVATE AND ENGAGE STUDENTS

Reeve (23) maintains that the SDT research literature clearly supports the claim that teachers are by far and away the most powerful influences on student motivation at the contextual level of education and as such, may be even more powerful at the less stable situational level. Reeve has identified the teacher-created contextual elements that SDT research

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has found nurture students' basic psychological needs. Students' need for autonomy is nurtured by teacher behaviors that allow for student choice and freedom to take the initiative. Students' need for competence is nurtured by teacher-provided structure. Their need for relatedness is nurtured by interpersonal involvement.

Autonomy and Autonomy-support

The benefits to the student of being autonomously-motivated (i.e., self-regulated rather than externally regulated) have been well documented in the SDT literature. Autonomy-supportive teacher behaviors, by definition, help students to become more autonomously-motivated. Autonomy-supportive teachers create opportunities for students to take initiative in their learning by providing instruction based on students' interests, preferences, personal goals and sense of challenge and curiosity while also allowing them opportunities to make choices and direct their own behavior (31). Controlling teachers, on the other hand, thwart students' need of autonomy by building instruction around incentives, directions, consequences and deadlines (i.e., external forms of motivation). The students of autonomy-supportive teachers have been found to have, on average, higher academic achievement, higher perceived competence and feeling of self-worth, more positive emotionality, greater creativity, and higher retention rates (23, 30). Additionally, students of autonomy-supportive teachers showed greater conceptual understanding, greater flexibility in thinking and more active information processing than students who had controlling teachers (23).

Reeve, Bolt & Cai (30) found that, although controlling teachers talked as much as autonomy-supportive teachers, autonomy-supportive teachers listened significantly more. They also found that controlling teachers spent more time holding instruction materials (rather

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allowing students to do so), gave students less time for independent work and gave students more solutions than autonomy-supportive teachers. Raters reported that controlling teachers used more directives and gave more commands while autonomy-supportive teachers used more empathic perspective-taking statements, praised mastery, and avoided criticism.

In a follow-up study, Reeve & Jang (40) found that students' perceived autonomy was positively correlated to certain teacher behaviors including spending time listening to their students, setting aside time for independent work, providing students opportunities to talk, praising signs of improvement and mastery, encouraging student effort, offering progress-enabling hints when students became stuck, responding to student questions and comments, and acknowledging the student's perspective and experiences. Those teacher behaviors that correlated negatively with perceived autonomy and were identified as autonomy thwarting included monopolizing learning materials, providing worked-out solutions and answers before the student had time to work on the task independently, directly telling the student the correct response instead of allowing him or her the time and opportunity to discover it, uttering directives and commands, introjecting "should" or "got to" statements within the flow of the instruction, and using controlling questions as a way of directing the students' work.

Only a few SDT-based studies investigating the impact of instructor behavior on students have been situated in either true or simulated clinical learning environments. In one, Williams & Deci (41) looked at medical students enrolled in medical interviewing courses in two U.S. medical schools. As hypothesized, the students of instructors who scored higher in autonomy-support were more autonomously motivated, more interested in patient interviewing, had higher perceived competence and reported psychosocial (i.e., humanistic patient-centered) rather than biomedical (i.e., mechanistic disease-oriented) beliefs. The data collected 1 to 2 years after the

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completion of these courses, showed the effects to be lasting. They also showed that the students of autonomy-supportive instructors tended to be more autonomy-supportive with their patients themselves. The evidence showing the connection between the internalization of psychosocial beliefs and autonomy-supportive interpersonal interactions suggests that SDT is indeed an appropriate framework for studying clinical education because the adoption of humanistic professional values and attitudes is one of its primary objectives. For a list of specific behaviors that either support or thwart students' need for autonomy see Figure 2.

Figure 2.

Competency and Competency-support

Teachers nurture a student's need of competence by providing structure and quality task-oriented informational feedback (23). Structure refers to the amount and clarity of information that teachers give students about learning/developmental expectations and ways of achieving desired outcomes. Teachers build structure by providing consistent guidance and direction and by offering task-specific and autonomy-enhancing feedback (31). They provide a program of action by scheduling learning activities using an informed understanding of the appropriate sequencing of these activities and mark the boundaries and manage the transition between these activities. They also provide step-by-step instruction when needed.

A lack of structure leaves students to their own, often inadequate, resources. According to SDT, this lack of instructor-provided structure will likely lead to lower levels of perceived student competence and a perceived lack of control over important outcomes. Instructor behaviors that actually promote chaos would likely thwart their need for competency leading to

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high levels of frustration and dissatisfaction. Instructors can create a chaotic learning environment by asking for outcomes without providing any guidance on how to achieve them, by using ambiguous, confusing, contradictory or misguiding directions and by providing mistimed or inaccurate task-oriented feedback. Relative to students with chaotic teachers, students whose teachers effectively provide structure tend to have more positive outcomes including enhanced engagement (38) and higher levels of self-regulation (42).

Structure is not established, as many believe, by making demands, imposing rigid rules or establishing sanctions for mistakes, failure or disengagement (23). This understanding of structure would actually lead to behaviors that thwart a student's need for autonomy and, in turn, undermine student engagement and learning. Some of the specific behaviors that either support or thwart students' need of competency are listed below in Figure 3.

Figure 3.

Relatedness and Relatedness-support

A student's need to establish deep rewarding relationships is met when teachers express knowledge of, and interest in, the student as a person. Research literature grounded in attachment theory, social support, school climate, and parenting clearly illustrates the importance of caring and interpersonal closeness in student-teacher relationships (43). Birch & Ladd (44j) found that teachers' ratings of their closeness to their students predicted school performance, school liking and self-directedness. Other studies found that students' feelings of teacher support predicted student interest, engagement, effort and performance (45).

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Grouzet et al. (27) hypothesized that the more interpersonal the context, the more influential teacher relatedness-support behaviors will become. In other words, students' motivation will be more dependent on the quality of the relationship in environments where learning and skill development can only be successfully achieved through social interaction. This claim has found support in the findings of recent research (22). Clinical education is situated in a highly social context where, relative to the classroom, students and their instructors spend significantly more time working in close proximity to one another performing tasks that require significant amounts of interpersonal interaction to complete effectively and which also often involve significant amounts of interpersonal interaction with a third party (i.e., patients). CIs and students are also much more likely to interact socially on a personal level in and out of the clinical learning environment. For instance, because of the unique nature of this relationship, it would not be uncommon to observe students in the clinical phase of their education going on a break or lunch with their CIs or even socializing outside of work doing things like working out or playing on the same softball team together. This unusually tight social connection between student and CI only serves to elevate the importance of relatedness-supporting behaviors in terms of their ability to motivate and engage students. See Figure 4 for a list of relatedness-supporting and relatedness thwarting behaviors.

Figure 4.

CONCLUSION

The evidence found in the research literature associated with effective and ineffective clinical teaching clearly underscores the importance of quality student-instructor relationships

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and the effect they can have on student educational outcomes. More specifically, studies grounded in Self-Determination Theory have determined that students are significantly affected by the psychological need-supporting or need-thwarting behaviors of their supervising clinical instructors. It would, thus, seem that specifically educating clinical instructors on what types of behaviors support and thwart students' psychological needs for autonomy, competency and relatedness would be imperative for any and all clinically-oriented educational programs. In their review of the literature on the effectiveness of intervention programs designed to teach people to support, and avoid frustrating, another's motivation to learn, Su & Reeve (47) found that such programs can be effective and do not need to be terribly lengthy or cumbersome to deliver. Programs can be effectively provided in only one or a few sessions of moderate duration (hours, rather than weeks or months).

In a perfect world, all clinical instructors would strive to consistently treat their students in ways that serve to motivate them to try harder and perform better than they would if left to their own devices. They would also refrain from ever behaving toward their students in ways that serve to demotivate them and "crush their spirit". Educational programs that provide opportunities for their clinical instruction faculty and staff to learn about, study, practice and adopt the motivational principles and motivating behaviors identified in this brief review of the literature can rest assured that their people are doing their part in trying to bring the state of clinical education closer to reaching that ideal.

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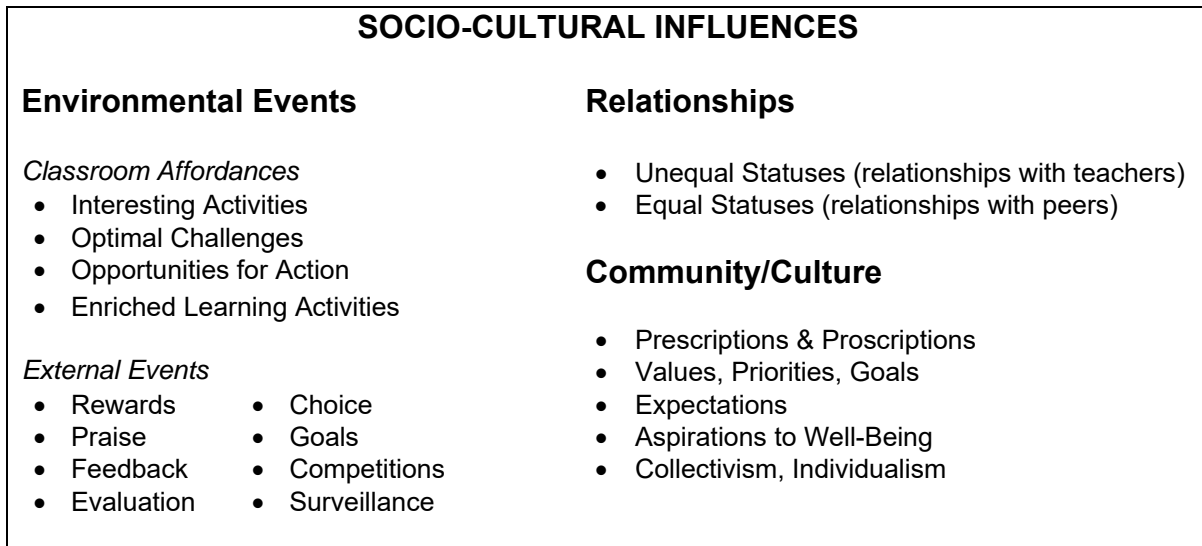


Figure 1. Social-cultural Influences on Student Motivation, Learning & Development (Adapted from 29)

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	Clinical Instructor Behavior Scale Items
1.	This clinical instructor exerts superiority over me.
2.	This clinical instructor inflexible, rigid and authoritarian.
3.	This clinical instructor is cold and distant towards me.
4.	This clinical instructor is smiles at me
5.	This clinical instructor rolls he/her eyes at me.
6.	This clinical instructor praises my work
7.	This clinical instructor makes condescending remarks towards me
8.	This clinical instructor takes over and does not allow me to perform clinical tasks
9.	This clinical instructor provides poor feedback
10.	This clinical instructor provides weak guidance

Table 1. A rank order of the 10 clinical instructor behavior scale items that showed the greatest group student engagement score differences between motivators and demotivators.

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During instruction, the clinical instructor:

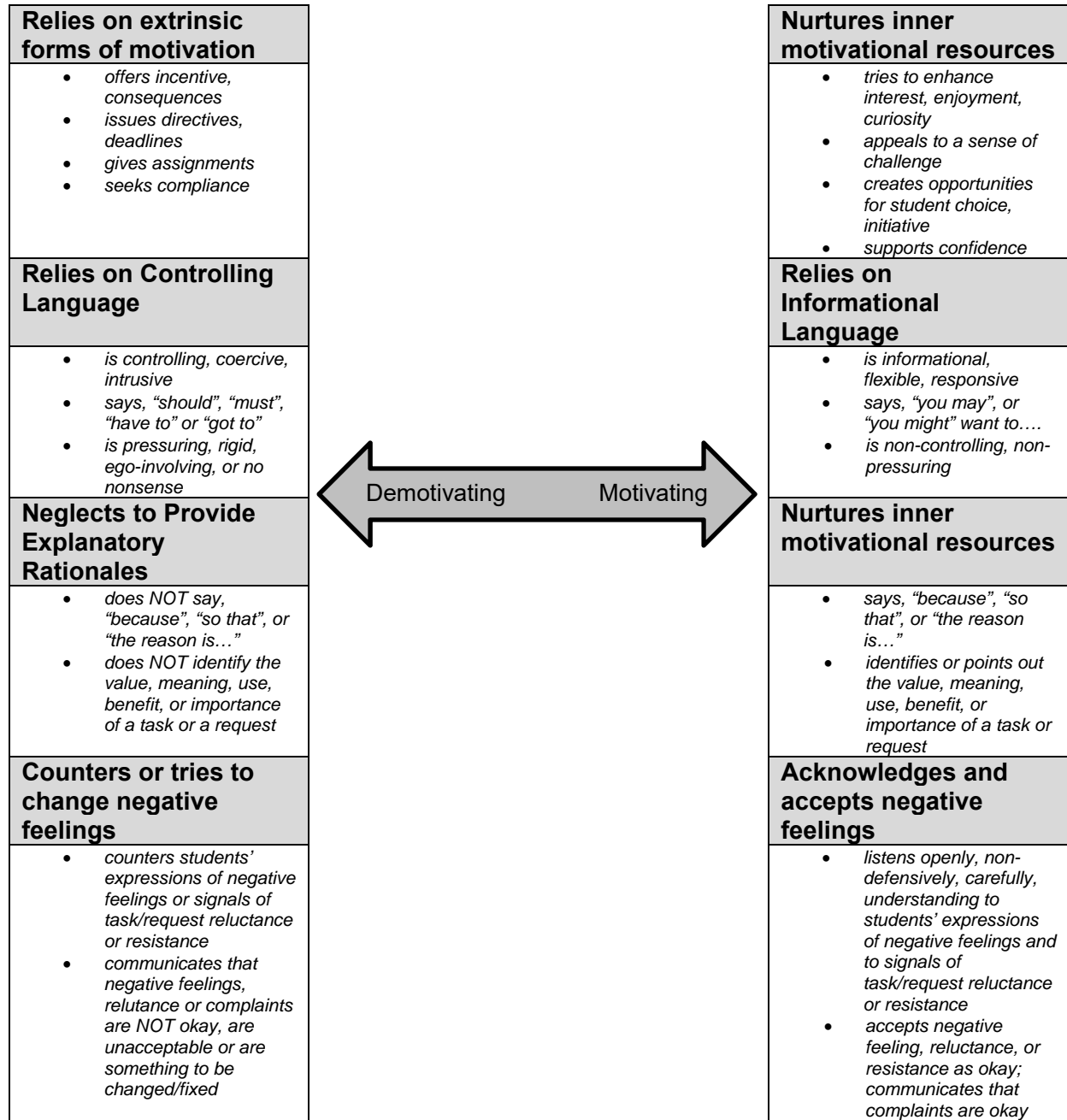


Figure 2. Behaviors that support or thwart students' need for autonomy (36)

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During instruction, the clinical instructor provides:

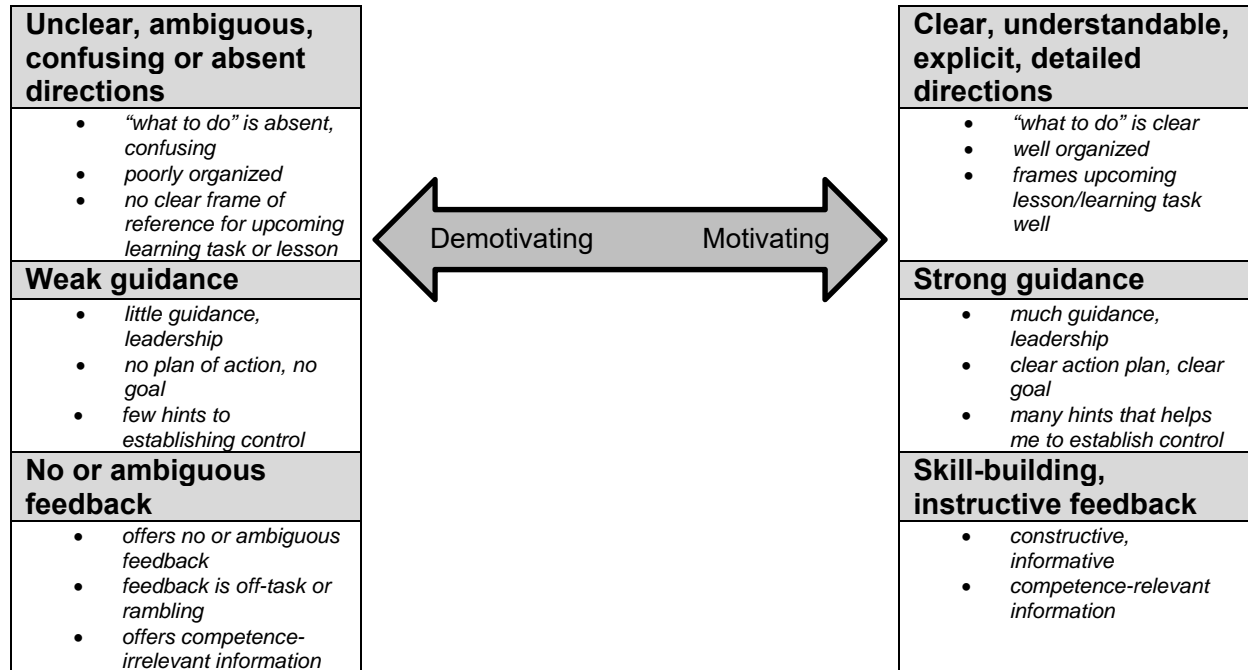


Figure 3. Behaviors that support or thwart students' need for competency (36)

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The clinical instructor:

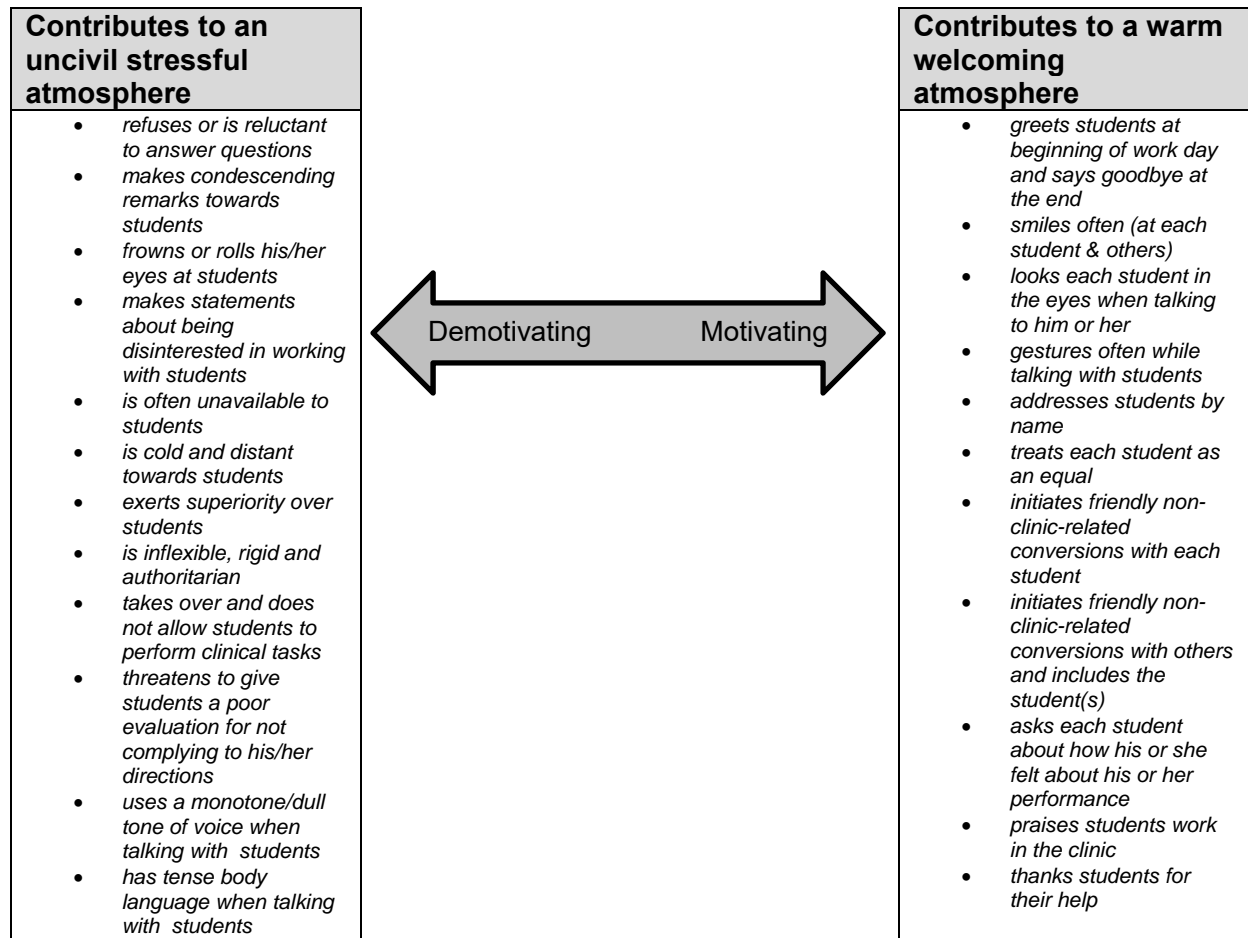


Figure 4. Behaviors that support or thwart students' need for relatedness (33, 46)