RESEARCH

Impact of Communication Method and Timeliness on Student and Faculty Perception of Professionalism and Value

Adam N. Pate, PharmD, a Laurie Fleming, PharmD, a Ashley Jones-Bodie, PhD, b Jamie L. Wagner, PharmD, a Joshua W. Fleming, PharmD, a Courtney Davis, PharmD, a Meagan A. Brown, PharmD a

a The University of Mississippi, School of Pharmacy, University, Mississippi
b The University of Mississippi, Department of Writing and Rhetoric, University, Mississippi

Submitted September 14, 2020; accepted June 16, 2021; published February 2022

Objective. This study sought to evaluate the impact of faculty, preceptor, and student preferences for type of communication received and timeliness of communication on their perceptions of professionalism and personal value.

Methods. An anonymous questionnaire was designed to assess pharmacy faculty, preceptor, and students’ preferred method of communication, response time expectations, impact on their perception of the sender’s professionalism, and personal perception of being valued. The questionnaire was sent to 924 faculty, preceptors, and students.

Results. Of the 253 responses received, 27 (11%) were from full-time faculty, 94 (37%) from part-time faculty preceptors, and 132 (52%) from students. Overall, email was the preferred communication method for receiving information that was not time sensitive (98%), with a majority of faculty, preceptors, and students indicating that 48 hours was a reasonable response time. Most participants felt that less than 24 hours was a reasonable response time for texts or phone calls. Most students indicated that response time was somewhat or not impactful (58%) on their view of the faculty or preceptor’s professionalism, while faculty and preceptors indicated that response time was neutral or somewhat impactful on their view of the student’s professionalism (60%). Most students (77%) indicated that a faculty or preceptor’s response time to their text or phone call impacted their perceptions of feeling valued and important.

Conclusion. Communication preferences among faculty, preceptors, and students differ. Professionalism related to communication was important to all groups, and timeliness of communication between faculty, preceptors, and students impacted their perception of their value and self-worth.

Keywords: communication, student services, professionalism, confirmation, self-worth

INTRODUCTION

Communication plays a critical role in how we are perceived and has significant potential to impact positively or negatively those with whom we interact. Pharmacy faculty, preceptors, and students communicate with each other in a variety of ways and often face challenges that impede effective communication. Methods and practices of communication can impact a person’s feelings of value and self-worth as well as their perception of their colleagues. The “always on” culture of today, where people often communicate via multiple channels throughout the day, has altered communication expectations and can lead to communication overload and fatigue, which can result in delayed communication response times. In addition, assumptions regarding preferred communication method (eg, email, text, phone call), work-life balance, after-hours contact, and what constitutes a “timely response” may vary among faculty, preceptors, and students. To date, these communication barriers and challenges within pharmacy education have not been thoroughly examined and may have a larger impact than realized regarding faculty, preceptors, and students’ perceptions of professionalism, as well as subjective feelings of self-worth or confirmation.

Over the last two decades, instructional communication research has demonstrated correlations between effective communication and student success in both broad theoretical terms and narrowed application-based study of teacher behaviors. For example, research into the impact of instructor email response speeds (ie, chronemics) found that faculty who responded faster to student emails were more positively evaluated by students regardless of the...
The communication concept of immediacy has captured much of the attention in communication education research.\textsuperscript{9-12} These findings have led to an increased understanding of behaviors that teachers can enact to positively impact student outcomes. Though not as broadly explored, teacher confirmation, which is defined as teacher behaviors that confirm students as valuable, significant individuals, has evolved as a distinct concept and broad theory in the field of instructional communication research.\textsuperscript{13} Though some conceptual- and outcome-focused overlap exists between teacher immediacy and teacher confirmation, these concepts have distinctive foci: one focuses on closeness (immediacy) and one focuses on affirmation of the individual’s value and worth (confirmation). Prior researchers have argued that teacher confirmation is a broader theoretical construct that subsumes many teacher behaviors, including immediacy.\textsuperscript{14,15} Research involving perceived teacher confirmation has shown a positive relationship of this with student learning, motivation, and apprehension in the classroom.\textsuperscript{13} Additionally, other research has indicated that perceived teacher confirmation is linked to improved student communication, participation, and greater learning.\textsuperscript{16}

When examining research beyond the bounds of instructional communication and pharmacy literature, the authors were unable to find work in other health professions evaluating this relationship between faculty/preceptor and student, although studies evaluating the impact of immediacy on the patient provider relationship are available.\textsuperscript{17} In addition to the absence in the pharmacy literature of studies focused on teacher confirmation, research in pharmacy education has not evaluated preferred communication method (text, phone, or email), expectations of responsiveness based on communication method, time sensitive or non-sensitive nature of the information, or perception of professionalism and confirmation between faculty/preceptors and students. Based on these research findings and the absence of recent research examining the impact of confirmation in communication between faculty and preceptors, and students in the pharmacy literature, we thought it would be helpful to explore this interaction. This research project sought to answer questions about faculty, preceptor, and student communication preferences and the related impacts on perceptions of timeliness of response, professionalism, and confirmation.

**METHODS**

This study was approved by the University of Mississippi Institutional Review Board. This was a cross-sectional study that used an anonymous electronic questionnaire to determine faculty, preceptor, and student preferences of communication methods, perception of timeliness of communication, perceptions of professionalism, and impact of response time on individual confirmation. Upon review of the current literature, we found no validated survey instrument that addressed the specific aims of this study. The research team developed two 25-item questionnaires: one targeting students and the other targeting faculty and preceptors. Globally the questionnaires assessed five areas: preferred method of communication (email, telephone, virtual, text, in-person), whether the preferred method changed based on the time sensitivity of information, variation in expected response time (ie, less than one hour, 1-24 hours, 25-48 hours, 49-72 hours, more than 72 hours) based on method of communication, the impact of the communication method chosen on the respondent’s perceptions of professionalism (eg, whether texting is unprofessional), and impact of email response time on individual confirmation (eg, does a faster response improve the recipient’s feelings of self-worth and value?). In addition to exploring faculty and preceptor communication with students, the questionnaire also sought to identify any variations in these perceptions when the communication was between professional colleagues (ie, faculty/preceptor to faculty/preceptor). The questionnaire also collected participants’ demographic information.

Between November 2019 and December 2019, the questionnaire was delivered using Qualtrics (Qualtrics) to active full-time faculty, part-time faculty preceptors, and currently enrolled first- through fourth-year students at the University of Mississippi School of Pharmacy. Participants received one reminder within the two-week period before data collection was closed. Responses were analyzed for each of the five main areas. Faculty and preceptor responses were then further analyzed for impacts on peer-to-peer communication. Categorical data were analyzed using the chi-square or Fisher exact test as appropriate, and
RESULTS

Two hundred fifty-three participants from a pool of 924 responded to the survey (27% response rate). When broken down by participant type, 121 of the 253 (48%) participants were full-time faculty or part-time preceptors and 132 of the 253 (52%) were students. Primary statistical analysis was performed using two distinct groups: faculty/preceptors and students. Overall, faculty and preceptors were well-represented, and included participants with fewer than five years to more than 40 years of experience. Student representation was distributed relatively equally among each class (19.7% first year, 29.5% second year, 25% third year, and 25.8% fourth year students, respectively).

A majority of participants preferred email (89%) over other methods of communication about non-time sensitive information. Conversely, when communicating time sensitive information, 35% of all participants preferred a face-to-face, in-person meeting, with the remainder of respondents preferring text messaging (28%), email (21%), or phone call (16%). Variation in most preferred method for communicating time sensitive information existed between the faculty/preceptors and the students. A more detailed breakdown of these preferences is provided in Table 1.

Evaluating method of communication and expected response time showed variation between faculty/preceptors and students. Reasonable response times were categorized by communication method and time. When faculty/preceptors and students communicated via email, a majority of all participants (91%) considered 48 hours to be a reasonable response time, but over half of the student participants (62%) indicated 24 hours was a reasonable response time for an email response from faculty/preceptors. When communicating by text message, almost all participants (95%) believed that receiving a response within 24 hours was reasonable. Similarly, most participants expected a phone call to be returned within 24 hours (91%). If faculty/preceptor to student communication occurred after the workday or over the weekend, 88% of participants expected a slower response time compared to the response time for communication that occurred during standard work times.

Researchers also evaluated professionalism in faculty/preceptor and student communication. Most participants deemed professionalism in communication to be important or very important (94%) (Table 2). Most participants (69%) also agreed that a communication response outside of their ideal time frame impacted their perception of the respondent’s professionalism. In contrast, a minority of overall participants (13%) indicated that communication received outside their preferred method (text vs email, etc) would impact their view of respondents’ professionalism. When self-reflecting on instances where they individually responded outside of their preferred time frame (eg, responding later than they would consider ideal), 75% of participants indicated that they viewed their own behavior in this context as unprofessional.

In addition to exploring preferences regarding type of communication method, timeliness of response, and views of professionalism, this project also explored participants’ perceptions of confirmation (ie, feelings of value and significance as an individual) as a component of timeliness when sending an email response. Nearly 80% of students indicated that faculty/preceptor email response time impacted their feeling of value/importance as an individual. Slightly over 80% of students indicated that the email response time of faculty/preceptors impacted their view of whether the faculty member/preceptor values them as a student and/or valued their learning. Similarly, when examining students’ perception of confirmation with peer communication, 80% indicated that the amount of time it took for fellow students to respond also impacted their perception of being valued. Further breakdown of the data on response time and confirmation is presented in Table 3.

An additional sub-analysis for communication method preferences and response times was performed in which the responses of first through third year (P1-P3) students were compared with those of fourth year (P4) students and the responses of full-time faculty were compared with those of part-time preceptors. Student sub-analysis found that the only significant variation in responses from the above was that more P4 students than P1-P3 students preferred email (32.4%) for non-time sensitive information and that P1-P3 students were more likely (41.2% vs 20.6%) to consider less than one hour to be a reasonable response time to a phone call.

When communicating with a professional colleague (ie, faculty/preceptor-to-faculty/preceptor) about non-time sensitive information, faculty and preceptors largely preferred email (88%). These preferences changed for time sensitive information for which faculty and preceptors preferred making a phone call (41%), sending a text (36%), or having a face-to-face meeting (16%). An analysis of preferences for communicating time sensitive vs non-time sensitive information between peers is presented in Table 4.

Overall, faculty members and preceptors placed a high degree of importance on professionalism when referring to colleagues (90%, important/very important) (Table 4). Most faculty/preceptors indicated that their perception
of their peers’ professionalism ranged from neutral to not impactful if communication was received outside of their preferred method (93%) or outside of their preferred time frame (81%). A majority of faculty and preceptor participants (81%) indicated they occasionally, rarely, or never felt it was an act of unprofessionalism if they responded to peer communication outside their preferred time frame, and only 4% felt that receiving peer communication after hours or over the weekend reflected unprofessional behavior on the part of the sender.

Table 1. Communication Preferences of Pharmacy Faculty, Preceptors, and Students

| What communication method do you prefer most when communicating for information that is NOT time sensitive? (n=252)a | Total (n=253, n%) | Faculty/Preceptors (n=121, n%) | Students (n=132, n%) |
|---|---|---|---|
| Phone call | 2 (0.8) | 2 (1.7) | 0 (0) |
| Email | 223 (88.5) | 111 (92.5) | 112 (84.8) |
| Textb | 5 (2) | 5 (4.2) | 0 (0) |
| Face-to-face in-personb | 22 (8.7) | 2 (1.7) | 20 (15.2) |

| What communication method do you most prefer most when communicating for information that is time sensitive? (n=252)a | Total (n=253, n%) | Faculty/Preceptors (n=121, n%) | Students (n=132, n%) |
|---|---|---|---|
| Phone call b | 40 (15.9) | 29 (24.2) | 11 (8.3) |
| Email | 52 (20.6) | 27 (22.5) | 25 (18.9) |
| Text | 71 (28.2) | 45 (37.5) | 26 (19.7) |
| Face-to-face in-personb | 89 (35.3) | 19 (15.8) | 70 (53) |

| When referring to communication by Email, what are reasonable response times (ideal time frame)? (n=252)a | Total (n=252) | Faculty/Preceptors (n=121) | Students (n=132) |
|---|---|---|---|
| < 1 hour | 4 (1.6) | 0 (0) | 4 (3) |
| 1-24 hoursb | 133 (52.8) | 51 (42.5) | 82 (62.1) |
| 25-48 hoursb | 98 (38.9) | 58 (48.3) | 40 (30.3) |
| 49-72 hours | 16 (6.3) | 10 (8.3) | 6 (4.5) |
| >72 hours | 1 (0.4) | 1 (0.8) | 0 (0) |

| When referring to communication by Text, what are reasonable response times (ideal time frame)? (n=248)a | Total (n=248) | Faculty/Preceptors (n=121) | Students (n=132) |
|---|---|---|---|
| < 1 hourb | 84 (33.9) | 31 (26.7) | 53 (40.2) |
| 1-24 hours | 156 (62.9) | 80 (69) | 76 (57.6) |
| 25-48 hours | 6 (2.4) | 3 (2.6) | 3 (2.3) |
| 49-72 hours | 1 (0.4) | 1 (0.9) | 0 (0) |
| >72 hours | 1 (0.4) | 1 (0.9) | 0 (0) |

| When referring to communication by Phone Call, what are reasonable response times (ideal time frame)? (n=251)a | Total (n=251) | Faculty/Preceptors (n=121) | Students (n=132) |
|---|---|---|---|
| < 1 hour | 66 (26.3) | 29 (24.4) | 37 (28) |
| 1-24 hours | 164 (65.3) | 78 (65.5) | 86 (65.2) |
| 25-48 hours | 16 (6.4) | 8 (6.7) | 8 (6.1) |
| 49-72 hours | 4 (1.6) | 3 (2.5) | 1 (0.8) |
| >72 hours | 1 (0.4) | 1 (0.8) | 0 (0) |

| How does your ideal time frame for a response change if the communication occurs after the work-day or during the weekend? (n=252) | Total (n=252) | Faculty/Preceptors (n=121) | Students (n=132) |
|---|---|---|---|
| Expect quicker response time | 7 (2.8) | 3 (2.5) | 4 (3) |
| Expect the same response timeb,ab | 22 (8.7) | 16 (13.3) | 6 (4.5) |
| Expect a longer response timea,b | 223 (88.5) | 101 (84.2) | 122 (92.4) |

aSome respondents did not complete all survey items.
b \( p < .05 \)
Analyzing faculty and preceptor peer communication to determine its impact on confirmation indicated that the amount of time it took a colleague to respond to an email impacted a faculty or preceptor’s perception of how much their peer valued the correspondence (59% of faculty vs 67% of preceptors). Additionally, one third of faculty and preceptors indicated that peer response time impacted their personal feelings of being valued as an individual (Table 3).

**DISCUSSION**

Technical communication considerations such as method of communication, timeliness of response, and time sensitive nature of the communication are important determinants of our ability to be effective and respectful colleagues and educators. This research explored the impact of preferred method of communication on views of professionalism and perceptions of confirmation among
faculty, preceptors, and students. It also evaluated these perceptions in relation to response time, after hours communication, and peer to-peer communication. These findings fill a gap in the pharmacy education and communication literature as they elucidate the variations and impacts of these variables on all participants (students, faculty, and preceptors). This research also is the first to examine the impact of email response time on feelings of confirmation for faculty, preceptors, and students in peer and non-peer relationships.

When evaluating the timeliness of responses, perceptions of a timely response between faculty or preceptors and students varied minimally across the various communication methods. More participants generally indicated that less than one hour would be a reasonable response time when communicating by text or phone call as compared to email, but still the majority felt that less than 24 hours was acceptable. One interesting finding was that over 80% of faculty and preceptors occasionally, rarely, or never felt they were acting unprofessional if they responded to a student outside of the student’s ideal response time. However, slightly over

Table 3. Impact of Communication on Pharmacy Faculty, Preceptors and Students’ Confirmation

| Responses | Full-Time Faculty (n%) | Part-Time Faculty/Preceptor (n%) | Students (n%) | p value |
|-----------|------------------------|---------------------------------|---------------|---------|
| Faculty responses: Does the amount of time it takes a colleague to respond to an email you sent impact your view of how that colleague values your correspondence with them? | 16 (59.3) | 62 (66.7) | n/a | .477 |
| Yes | 14 (51.9) | 49 (52.7) | n/a | .939 |
| Does the amount of time it takes a colleague to respond to an email you sent impact your view of how that colleague values you as a fellow colleague? | 9 (33.3) | 32 (34.4) | n/a | .917 |
| Yes | n/a | n/a | 105 (79.5) | n/a |
| Does the amount of time it takes faculty/preceptor to respond to an email impact your view of whether they appreciate student questions? | n/a | n/a | 106 (80.3) | n/a |
| Yes | n/a | n/a | 102 (77.3) | n/a |

*aSelf-worth or value.*
50% of students frequently or very frequently felt this would be unprofessional. This finding seems to be in opposition to the fact that all groups ranked professionalism in communication as being highly important. Respondents overwhelmingly did not view communication occurring after the standard workday or on the weekend as unprofessional, with a majority expecting a longer response than when communication occurred during general business hours.

As for the impacts of email timeliness on faculty members, preceptors, and students’ perceptions of confirmation, we found that participants’ feelings of self-worth and

Table 4. Pharmacy Faculty and Preceptors’ Preferences Regarding Peer Communication

| What communication method do you prefer most when communicating information that is NOT time sensitive? | Total (n=121, n%) | Faculty (n=27, n%) | Preceptors (n=94, n%) |
|---|---|---|---|
| Phone call | 2 (1.7) | 0 (0) | 2 (2.1) |
| Email | 107 (88.4) | 24 (88.9) | 83 (88.3) |
| Text | 5 (4.1) | 0 (0) | 5 (5.3) |
| Face-to-face in-person | 7 (5.8) | 3 (11.1) | 4 (4.3) |

| What communication method do you most prefer most when communicating information that is time sensitive? | Total (n=121, n%) | Faculty (n=27, n%) | Preceptors (n=94, n%) |
|---|---|---|---|
| Phone calla,b | 49 (40.5) | 6 (22.2) | 43 (45.7) |
| Email | 8 (6.6) | 4 (14.8) | 4 (4.3) |
| Text | 44 (36.4) | 7 (25.9) | 37 (39.4) |
| Face-to-face in-persona,b | 20 (16.5) | 10 (37) | 10 (10.6) |

| When referring to communication by email, what are reasonable response times (ideal time frame)? | Total (n=121, n%) | Faculty (n=27, n%) | Preceptors (n=94, n%) |
|---|---|---|---|
| 1-24 hours | 53 (43.8) | 14 (51.9) | 39 (41.5) |
| 25-48 hours | 55 (45.5) | 11 (40.7) | 44 (46.8) |
| 49-72 hours | 10 (8.3) | 1 (3.7) | 9 (9.6) |
| >72 hours | 3 (2.5) | 1 (3.7) | 2 (2.1) |

| When referring to communication by text, what are reasonable response times (ideal time frame)? (n=120)a | Total (n=121, n%) | Faculty (n=27, n%) | Preceptors (n=94, n%) |
|---|---|---|---|
| < 1 hour | 36 (30) | 10 (38.5) | 26 (27.7) |
| 1-24 hours | 81 (67.5) | 15 (57.7) | 66 (70.2) |
| 25-48 hours | 2 (1.7) | 1 (3.8) | 1 (1.1) |
| >72 hours | 1 (0.8) | 0 (0) | 1 (1.1) |

| When referring to communication by phone call, what are reasonable response times (ideal time frame)? | Total (n=121, n%) | Faculty (n=27, n%) | Preceptors (n=94, n%) |
|---|---|---|---|
| < 1 hour | 33 (27.3) | 5 (18.5) | 28 (29.8) |
| 1-24 hours | 77 (63.6) | 16 (59.3) | 61 (64.9) |
| 25-48 hoursa,b | 8 (6.6) | 6 (22.2) | 2 (2.1) |
| 49-72 hours | 2 (1.7) | 0 (0) | 2 (2.1) |
| >72 hours | 1 (0.8) | 0 (0) | 1 (1.1) |

| How does your ideal time frame for response change if the communication occurs after the workday or during the weekend? | Total (n=121, n%) | Faculty (n=27, n%) | Preceptors (n=94, n%) |
|---|---|---|---|
| Expect quicker response time | 4 (3.3) | 1 (3.7) | 3 (3.2) |
| Expect the same response time | 8 (6.6) | 0 (0) | 8 (8.5) |
| Expect a longer response time | 109 (90.1) | 26 (96.3) | 83 (88.3) |

aSome respondents did not complete all survey items.
bP<.05
perception that the receiver inherently valued their communication were impacted by delayed response times. Faculty member and preceptor confirmation was also impacted by the timeliness of peer response, with approximately one-third of faculty and preceptors equating their personal value as a colleague to the timeliness of an email response. The impact that the timeliness of response had on faculty and preceptors was surprising to investigators and may be the result of a variety of unintended consequences related to faculty and preceptor workload (ie, disconnecting from electronic communication during meetings, busy times at work, or patient care-related activities). Establishing clearer and more realistic expectations regarding communication has the potential to improve not only communication but also student, faculty, and preceptor perceptions of being valued.

The results of this study may provide guidance for determining best practices in communication. Additionally, this study may shed light on an area that may be a blind spot for some faculty, ie, the importance and impact of timely communication with students and peers. In general, it would be prudent to respond to all communication within 24 hours during weekdays and consider replying sooner to texts if possible. Students also may not need to worry as much regarding which communication medium to use with faculty members and preceptors as sending a text or email or making a phone call did not significantly impact faculty and preceptors’ perception about a student’s professionalism and varied based on the time sensitive nature of the communication. Although these general parameters may be difficult for faculty, preceptors, and students to adhere to at certain times of the year and may not apply to sensitive email communications, the general understanding to keep in mind is that response times communicate a great deal to us as individuals and value their communication.

This study is unique in that it evaluated two groups: students and full-time faculty members and part-time preceptors. Additionally, it is the first study in pharmacy education to evaluate preferences for modes of communication of time sensitive material, and perceptions of professionalism and impact on confirmation. As with any study, there are limitations. This was a single institution project completed at a traditional four-year split campus institution located in the Southeastern United States, which potentially limits the generalizability of findings. Additionally, the potential for responder bias should be considered when interpreting these results. The survey also had a 27% response rate, limiting the ability to draw firm conclusions even though the sample was evenly divided between students and faculty and preceptors. Lastly, in evaluating appropriate timeframes for a response, participants were only given the options of less than one hour and less than 24 hours. This may have represented too wide of a range as faculty, preceptors, or students might desire a more timely response than 24 hours but not necessarily less than one hour. In future studies, it may be beneficial to evaluate faculty, preceptors’, and students’ preferences for response times of less than an hour, less than four hours, four to eight hours, and less than 24 hours to get a better understanding of response times during a typical workday.

We hope that this pilot project stimulates further research into interpersonal communication within the Academy. Opportunities that we believe would be interesting include conducting a multi-institution replication study that includes three-year, four-year, split campus, and other schools to confirm findings, evaluating the impact of out-of-office replies on feelings of confirmation, and conduct further research on confirmation in areas like the pharmacy classroom, clinical sites, etc. Another area that could be considered in future communication research is the location of student classrooms or meeting areas in relation to that of faculty offices to see whether student communication preferences (eg, face-to-face meetings) differ based on the distance to faculty offices. At the institution where this research was conducted, students frequently pass faculty offices as they go to class, increasing the convenience of in-person communication. While this specific aspect was not examined in this study, it may provide an explanation for the finding of student preference for face-to-face communication and should be considered for future research. An area of consideration for faculty/preceptors would be their individual response time to students as approximately 40% of preceptors did not feel their response time was unprofessional as long as they responded within their own ideal time frame. It would be prudent for preceptors to increase clarity and expectations of communication with students when their workload is heavier and response times may be delayed given that the majority of students felt more strongly that it was unprofessional to respond to a faculty member or student at the weekend. Another finding from this research that warrants further investigation is that receiving weekend and afterhours communications had minimal impact on the recipient’s views of professionalism, especially when this finding is considered alongside the prevalence of burnout among pharmacy educators and the broad implications of excessive workload.18

CONCLUSION

The findings from this study expand the Academy’s understanding of the importance and impact of timely responses when faculty, preceptors, and students communicate with each other in that all participants in this study, and specifically an overwhelming majority of students,
attributed timeliness of communication response to their perceptions of value/importance as an individual. In fact, timeliness of response appeared to be more important to participants than the method of communication used. Understanding the potentially broader impact of the timeliness of responses allows individuals an opportunity to manage expectations and provides an additional avenue for cultivating an individual sense of value and importance in students, faculty, and preceptors, thus contributing to the overall benefits of teacher confirmation of students as indicated by prior research. These findings may become even more important in times of uncertainty when the academic landscape changes for both faculty and students as occurred during the COVID-19 pandemic when instruction shifted to online learning. When modes of communication are removed from the faculty toolkit (eg, in-person interactions during times of crisis), it may be even more critical for faculty to rely on the positive, communicative behaviors available to faculty that support confirmation.16,17 These findings demonstrate that timely responses to peer and non-peer emails are one such avenue.

REFERENCES

1. Hemp P. Death by Information Overload. Harv Bus Rev. 2009;(September 2009). Accessed June 13, 2021. https://hbr.org/2009/09/death-by-information-overload
2. Russell E, Woods SA. Personality differences as predictors of action-goal relationships in work-email activity. Comput Hum Behav. 2020;103:67–79. doi:10.1016/j.chb.2019.09.022
3. Witt PL, Wheelless LR, Allen M. A meta-analytical review of the relationship between teacher immediacy and student learning. Commun Monogr. 2004;71(2):184–207. doi:10.1080/036345204200228054
4. Andersen JF. Teacher immediacy as a predictor of teaching effectiveness. Ann Int Commun Assoc. 1979;3(1):543–559. doi:10.1080/23808985.1979.11923782
5. Foral PA, Turner PD, Monaghan MS, et al. Faculty and student expectations and perceptions of e-mail communication in a campus and distance Doctor of Pharmacy program. Am J Pharm Educ. 2010;74(10). doi:10.5688/aj7410191
6. Kostoff M, Burkhardt C, Winter A, Shrader S. An interprofessional simulation using the sbar communication tool. Am J Pharm Educ. 2016;80(9):157. doi:10.5688/ajpe809157
7. Gillette C, Rudolph M, Rockich-Winston N, Stanton R, Anderson HG. Improving pharmacy student communication outcomes using standardized patients. Am J Pharm Educ. 2017;81(6):110. doi:10.5688/ajpe816110
8. Hess R, Hagemeyer NE, Blackwelder R, Rose D, Ansari N, Branham T. Teaching communication skills to medical and pharmacy students through a blended learning course. Am J Pharm Educ. 2016;80(4):64. doi:10.5688/ajpe80464
9. Roberts A, Friedman D. The impact of teacher immediacy on student participation: an objective cross-disciplinary examination. Int J Teach Learn High Educ. 2013;25(1):38–46.
10. Sanders JA, Wiseman RL. The effects of verbal and nonverbal teacher immediacy on perceived cognitive, affective, and behavioral learning in the multicultural classroom. Commun Educ. 1990;39(4):341–353. doi:10.1080/03634529009378814
11. King P, Witt P. Teacher immediacy, confidence testing, and the measurement of cognitive learning. Commun Educ. 2009;58(1):110–123. doi:10.1080/036345208025111233
12. Kelly S, Rice C, Wyatt B, Ducking J, Denton Z. Teacher immediacy and decreased student quantitative reasoning anxiety: the mediating effect of perception. Commun Educ. 2015;64(2):171–186. doi:10.1080/03634523.2015.1014383
13. Ellis K. Perceived teacher confirmation: the development and validation of an instrument and two studies of the relationship to cognitive and affective learning. Hum Commun Res. 2000;26(2):264–291. doi:10.1207/s1532707xhcr2602_5
14. Ellis K. The impact of perceived teacher confirmation on receiver apprehension, motivation, and learning. Commun Educ. 2004;53(1). doi:10.1080/0363452032000135742
15. Jones-Bodie A, Morgan M. Confirmation, immediacy, and motivation in the classroom: a longitudinal exploration of teacher confirmation, immediacy and student motivation. Presented at the annual conference of the Southern States Communication Association; March 2007; Louisville, KY.
16. Goodboy AK, Myers SA. The effect of teacher confirmation on student communication and learning outcomes. Commun Educ. 2008;57(2):153–179. doi:10.1080/03634520701787777
17. Bartlett Ellis R, Carmon A, Pike C. A review of immediacy and implications for provider-patient relationships to support medication management. Patient Prefer Adherence. Published online January 2016. doi:10.2147/PPA.S95163
18. Darbishire P, Isaacs AN, Miller ML. Faculty burnout in pharmacy education. Am J Pharm Educ. 2020;84(7):ajpe7925. doi:10.5688/ajpe7925