
ORIGINAL ARTICLE

Education and patient care in a chiropractic teaching clinic: An organizational approach to health and safety during the COVID-19 pandemic

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ABSTRACT

Objective: The academic teaching clinic at our chiropractic college in California remained open beginning in the early stages of the COVID-19 pandemic and shelter-in-place order requiring individuals to stay at home except for essential activities. We report the experiences described by health center personnel who were present during the shelter-in-place early stages.

Methods: Narrative approach and descriptive thematic analysis of transcripts of 15 interviews with faculty, staff, and student interns. Report of key events and processes for developing ongoing COVID-related policies and procedures to conform with state and county public health mandates.

Results: Themes included (1) Organizational processes and procedures; (2) Perceptions of safety; (3) Successful adaptations and responses; (4) Challenges; (5) Mental health and well-being; (6) Unanticipated benefits and opportunities; and (7) Reflections on chiropractic philosophy. Participants' initial fears diminished as they gained confidence in the safety conferred by the new procedures and a returning sense of normalcy. They discussed the importance of social connection, chiropractic wellness philosophy, and their personal beliefs within the context of the pandemic and public health mandates. Despite initial reductions in numbers of patients and procedures that could be performed, patients received continuing chiropractic care and interns were able to complete their academic requirements while experiencing unique learning opportunities.

Conclusion: Despite substantial challenges, the rapid response in the early stages of the pandemic enabled the college to fulfill the multiple missions of providing patient care, community support, and uninterrupted clinical education to student interns while conforming to public health mandates and guidelines.

Key Indexing Terms: Chiropractic; Education; COVID-19 Pandemic; Public Health, Patient Care, Mental Health

J Chiropr Educ 2022;36(2):103–109 DOI 10.7899/JCE-21-37

INTRODUCTION

The COVID-19 health emergency is unprecedented in modern times. The chiropractic profession needs information about the effects of COVID-19 on chiropractic education and the reaction of the chiropractic profession and the implementation of changes to chiropractic practice. We describe in this report the experience of staff and students at a chiropractic college teaching clinic in California responding to public health mandates and measures to reduce transmission of COVID-19 in our local community.

In early 2020 US federal, state, and county governments and public health officials were closely monitoring the developments and spread of COVID-19, continually revising public health guidelines and issuing updates.¹ As

has been reported elsewhere, the California Board of Chiropractic Examiners did not provide recommendations regarding chiropractors as essential providers during the early stages of the pandemic that are covered in this report.² In response to scant, changing information and guidelines our chiropractic college announced on March 11 that it had established a new “COVID Task Force,” that included executive-level and departmental campus and health center leaders, human resources, and the college attorney. The charge of the task force was to review and update the college community on the situation. In addition to emailing periodic announcements to share best evidence-based advice for personal protective procedures to stay safe, the task force also convened in-person and virtual town hall-style meetings that were open to the entire college community. A comprehensive description of

First Published Online August 1 2022

the college's early response appears in Appendix 1 (online supplementary material).

We report on the organizational rapid response of our chiropractic college teaching clinic, to early pandemic COVID-related public health mandates. Our health center remained open to sustain access for chiropractic patients in our local community and to continue uninterrupted the clinical training and progress of our chiropractic interns. We aimed to describe the experience of individuals within our institution, and report their perceptions about the impact of the pandemic and related organizational changes on patient care, teaching, and learning.

METHODS

We used a qualitative narrative approach³ and interviewed personnel and student interns who were present at the health center March–June 2020, and who volunteered to discuss the unprecedented experience of providing services during the initial “Shelter in Place” (SIP) stages of the pandemic, when the Governor and our county health department issued orders for individuals to stay at home except for essential activities.⁴ We recruited participants through email to the clinic faculty, interns' mailing list, flyers, and snowball sampling. Anyone interested in participating contacted the researchers directly. We interviewed all respondents who were present at the health center during the early stages of the pandemic: March–July 2020). We conducted 45-minute semistructured interviews⁵ with interview guides (Appendix 2, online supplementary material) consisting of open-ended questions focusing on the new clinic procedures and the processes of developing and implementing them. We asked participants to comment on challenges and successes, the impact on teaching and learning, and how their clinical experience during the SIP contributed to students' knowledge and clinical skills. We did not ask about participants' beliefs or opinions about the virus, health care generally, or chiropractic specifically. We spoke minimally and probed as needed to encourage participants to expand on their answers.⁶ We revised interview guides throughout this project as new information emerged and interviewed until we observed thematic saturation.

Both authors interviewed 8 of the 15 participants via GoToMeeting videoconferencing (LogMeIn Inc, San Francisco, CA, USA). One author interviewed the remaining 7. The software provided automatic transcripts, which we then reviewed, corrected, and prepared for thematic analysis.⁵ We read the transcripts and manually segmented the text into themes using predetermined (deductive) and emerging (inductive) coding,³ which we refined throughout the project. We created a tabular data matrix⁷ to analyze the flow of conversational threads, or themes, that we summarized individually and as overall findings.⁸ We use the matrix to organize our findings and ensure that the quotes we present are representative of the full spread of participants. Both authors discussed the process, reviewed the coding, and resolved differences by consensus.

All participants consented to be interviewed for this project, which was approved by the Life Chiropractic College West institutional review board (#PIDN 2020-001).

RESULTS

During June and July 2020, we conducted 15 interviews with individuals who were present as soon as the health center reopened on March 23 or returned in the following weeks: 12 with health center personnel (staff, administrative, faculty) and 3 with student interns. We identified 7 main themes. Five corresponded to interview questions and probes: (1) Organizational processes and procedures; (2) Perceptions of safety; (3) Successful health center adaptations and responses; (4) Challenges; and (5) Mental health and well-being. Two themes emerged inductively: (6) Unanticipated benefits and opportunities and (7) Reflections on chiropractic philosophy and wellness. We also summarize participants' recommendations to the institution. We edited quotes for clarity and brevity and to minimize the risk of deductive disclosure, which is being able to identify a particular respondent's identity from their responses.⁹ We present quotes that typify the themes, originate from multiple interviews, and unless otherwise noted represent the views of a variety of participants.

Organizational Processes and Procedures

A key administrator described the initial process of developing the health center's COVID-19 safety procedures: On March 16, 2020, in response to the county's SIP mandate the chiropractic college campus was closed to all students, and all activities associated with teaching, research, and general administrative operations were moved online. The suspension of onsite activities of the “classroom side” of the college continued for the next several months. The college temporarily closed the health center to gather clinic faculty and staff who work in the health center to discuss how best to respond to the SIP order. In California, chiropractic was determined to be an essential service.¹⁰ The health center clinic remained closed for only 1 week to allow intensive planning and preparation of institutional policies and procedures to effectively and safely reopen the clinic to serve the community.

Clinic faculty and staff said that the process of developing and implementing the institutional response to the public health mandates was transparent and collaborative. Several respondents credited effective, inclusive leadership throughout the process. A faculty mentor said, “Everybody's stepped up... Even if you are working from home, you did something. We all helped us make it work.”

... different viewpoints were taken into consideration ... we worked expeditiously to get it done as quickly as possible to be able to be closed as minimally as possible. ... we really came together to figure out what needed to be done to be able to comply with county regulations, taking into consideration the public health crisis and components thereof, and as well as to be able to represent ourselves as chiropractors. —Faculty

Comments regarding the development of new procedures were generally positive, although not everyone agreed with the mandates or the procedures themselves. There was some initial confusion about implementation.

Faculty experienced new roles and duties, and participants frequently mentioned receiving regular communications about the pandemic and the safety procedures.

Perceptions of Safety

The transparent processes and ongoing communication contributed to participants' perceptions of safety. A staff member described feeling comfortable at work because the administration met with the entire health center group before working with the task force to develop the plan for reopening. Most participants said that they thought that the procedures were sufficient, effective, and responsive to changing mandates and new information. A faculty mentor said, "I would say that our screening at the college was more in depth than the screening I got [in other health care settings]." Another said, "I take all the precautions. . . We have hand sanitizing. So, I feel comfortable, or I wouldn't be there." Six participants said that they felt safe as soon as they returned to the health center. Eight said that they felt fear or anxiety initially, and 7 of those 8 also said that they felt better over time as they observed the safety procedures that had been put in place and learned more about the virus and its mode of transmission.

With more understanding about the virus and how it could be transmitted helped me a lot to reduce my fear to work in the HC. I'll say it has been a roller coaster. . . in the beginning, we were confused and sort of nervous about the whole thing. And then, real quickly, I was just so over it, and so ready for it to be done. —Intern

I got pretty weirded out, went through this period of not wanting to touch anything and being just nervous about everything. . . .then following the systems and following the rules. . . my normal, everyday feeling of myself came back. —Faculty

Most participants understood the procedures, including changes to the environment (barriers, place markers), sanitation, masking, and limitations on the number of individuals permitted onsite or in enclosed spaces and the 30-minute time limit on appointments that was implemented as a result. Communication was key.

There are barriers where the patients can only get so close to the staff. . . . staff know who's coming in, all of the patient statements pre-printed, which means patients are not coming in and sitting in the waiting room. There's not a bunch of congregating, which is great. —Faculty

The need to individually connect with each student was different. I'd never been through a public health crisis like this before. Deciding how I thought and felt about it and then being able to communicate that effectively to interns who had a lot of questions about how they should think and feel about it. —Faculty

Some participants said that there could have been better communication. A faculty mentor said, "I was never given any direction as to whether to wipe down the tables with the sanitizer before the patient comes in or after." Some

said that receiving more information about the virus itself would have been useful.

Successes

When they were asked to reflect on "what worked well," participants discussed the school's rapid response and reopening and the minimal interruption in providing patient care and chiropractic education. An intern said, "My patients are willing to get chiropractic care consistently. . . .I wanted to help them, provide consistent care."

We had a really great response from our community. Especially our patients, they were excited that we're opening up so they didn't miss any care. Our community was reaching out. They had nowhere to go. . . I think it was really important that we stayed open. —Staff

Other colleges have inquired as to how we're doing it because they have had a slower opening than ours. So, we really were on the forefront of opening sooner and keeping, going, seeing patients sooner, and on a more regular basis. —Faculty

Participants noted improvements in patient management and clinic efficiency. A faculty mentor said "The patient flow has been really good at getting the patients in and out. I think it's going to be helpful for (the interns) in their practice." An intern said that the procedures "made it more obvious what we're supposed to be doing and the order things need to go in."

We streamlined a lot of our processes. . . .We used to have lines at the front desk for checking in, checking out, and we don't anymore. . . . Everybody has either their electronic payment or credit card ready to go. —Staff

Administrators and faculty said that staying open enabled students to complete their clinic requirements and graduate on time. All 3 interns said that getting their adjustment and patient contact hours was 1 of the reasons they returned to clinic at the start of the SIP.

Mental Health and Well-being

All but 1 participant experienced or observed negative mental health effects in themselves and others, "I was really scared at first [at the health center]. . . .It was dealing with the public, the unknown . . . anxiety really kicked in. . . . Outside, especially thinking about my family and everything really affected me." A faculty mentor said "My nervousness didn't even come from the virus itself. I've been very frustrated and kind of angry about the whole thing, just because of how my life has basically been shut down." Several participants said that they were concerned about transmitting the virus.

I'm not worried for myself, but the thought of if I am carrying it. . . and I get around people that are immune compromised, then I could potentially give that to them. I just couldn't live with myself with that, so that's why I [initially] decided to stay away. —Faculty

[At the beginning] there was no one that I knew of to provide any kind of support in terms of the fear or just finding someone to talk to. It has [gotten better] as more people are coming back. Also, more understanding about the virus and how it could be transmitted helped me a lot to reduce my fear. —Intern

Participants talked about the importance of human connection and how the quick return to work helped to reduce their feelings of isolation and foster a sense of normalcy and well-being. A faculty mentor said, “I’ve been able to come to work and do mostly what I was doing before, which has really brought me a lot of peace during a super chaotic time, so grateful,” while an intern said “My life has basically been shut down... that was part of the reason I couldn’t wait to go back to the health center because I’m kind of a workaholic and not being able to do it was making me crazy, being stuck at home all the time.”

I had a lot of anxiety in the beginning, but I stopped watching the news. And that helped a lot. And just being here as time went on, it made me feel much better. It was much better for me to be here working than to be at home doing nothing. Getting into the health center and working gave me a sense of normalcy. —Faculty

Another intern said “As people start to come back, we have more time to talk to other interns and talk to the patients. So that human connection increases communication and also it reduces the fear of COVID.”

The hardest thing [about staying home] was that I live by myself, and it became such a strong isolation. And even though I could connect [remotely] it wasn’t the same as being here and having that social part of work here. —Faculty

We did not interview patients for this project, but our study participants volunteered their own observations about their health center patients. Some patients stayed away, some were more afraid than others, and some were eager to return.

A lot of the patients were like, “Oh my gosh, thank goodness. Thank you so much for being open. I’m so excited that I get to come in just to be able to do something get out of the house. ... So I think it played a really important role aside from the biomechanical and physical impact of chiropractic care on their systems. —Faculty

Challenges

Participants described the logistical challenges of coordinating schedules and adapting to new safety and social distancing rules. The cancellation and rescheduling of the National Board of Chiropractic Examiners exams inconvenienced some students and delayed licensure for others. Some health center personnel reported feelings of unfairness and inequitable distribution of work responsibility between those who returned to the health center when it reopened and those who chose to work from home. Working from home also presented its own set of

challenges for clinic faculty attempting to mentor and supervise interns remotely. A faculty mentor who was present onsite throughout the SIP described the increased workload: “I had the responsibility of overseeing everybody’s interns, not just mine. I couldn’t observe all of the interns adjusting their patients. I just didn’t have the time to do that because I had to get on with the next intern.” Another mentor who initially worked from home before returning to the clinic said, “You get better teaching if [faculty] are there in person and can interact more with the intern and the patient directly 1-on-1.”

My [mentor] wasn’t able to come into the clinic because they sheltered in place. So I wasn’t getting enough guidance about procedures, paperwork. It was little bit of struggle, trying to get everything on track... Sometimes there were only 1 to 2 docs, and they weren’t able to monitor or supervise the whole adjustment. That also affected the learning experience, because we want to get feedback when we’re treating patients. —Intern

Participants said that patients were sometimes dissatisfied with the screening procedures, that the ability to care for patients was reduced, and that teaching and learning were affected by the time limits and social distancing. A staff member commented, “If patients had an appointment and they were prescreened, they were allowed in, but if they didn’t, they weren’t allowed... People get upset that we weren’t allowing them on campus, and that we’re actually telling them that they had to leave.” Interns could not treat as many patients, or the variety of patients as before.

We can’t treat people who we feel need treatment or benefit from treatment... consequences of that are that we will probably be losing a number of patients who will just drop off and not continue with care. So, they will lose in terms of not getting chiropractic care. The health center interns will lose by losing patients. —Faculty

Social distancing, particularly the restriction on the number of interns who could gather in their faculty mentor’s office was another frequently mentioned educational challenge. One intern said, “Being able to listen in with the other interns and their questions or how they would deal with a certain condition with what technique, that’s been kind of missing, for sure.” Social distancing had other effects on training:

Requirements have been altered to allow for interns to leave the health center earlier than would be normal to go on a preceptorship... So there has been some loss in training of adjusting skills and paperwork skills. —Faculty

Time constraints were mentioned by all participants as having broad effects on scheduling, appointment time, care provision, and learning, as well as being a source of stress and anxiety.

I think the challenge was probably the time management... scheduling patients and keeping them

on schedule. ...it was really stressing [the front desk staff] out. Sometimes interns would be too slow with their patients. And then if they wanted to do a physical therapy modality, they maybe ran out of time and couldn't do it. So, as far as patient care, that probably has been an issue. —Faculty

The majority of faculty and interns said, unprompted, that the 30-minute limit on appointments presented a substantial challenge to learning and patient care. A faculty mentor said, "That's probably what has been the biggest issue, keeping interns to the allotted time." An intern worried that patients' experience would be diminished by the perception that their doctor was in a hurry. Faculty mentioned that the time limit had the practical effect of reducing what could be covered in 30 minutes by interns who are still learning and developing their clinical skills.

Unanticipated Benefits/Opportunities

Some challenges were also described as beneficial. Over half of the faculty and 1 student said that the 30-minute time limit on appointments provided an opportunity for students to learn how to be more efficient, which in turn would benefit them throughout their careers. A faculty mentor said "I think it's good training. For years we told them, you have to do that, you got to go quicker. So now they're going quicker." And another said, "I think it will [help them as they enter private practice]. It gives them a different perspective on managing numbers and managing care." An intern, who otherwise was critical of the 30-minute limit said, "Being able to manage my time better, that's going to help me in the future in a practical and tactical way."

In practice, you really can't spend an hour with every patient. ... If [the interns] can't get a patient in and out in 30 minutes for just an office visit, then they're taking way too long. So it's been a good lesson for them. —Faculty

About one-third of the participants said they thought that social distancing protocols provided benefit. Mandated restrictions on patient volume created more time for 1-on-1 discussions.

Any type of like frustrating circumstance comes with its silver linings, right? And that was 1 of them; to be able to have that intense 1-on-1 time with a handful of interns that were here, especially in the beginning. ... I ended up having philosophical conversations, and just different conversations with my interns. —Faculty

Most participants thought that interns' overall experiences during the SIP would benefit them in their future practice. Only 2 participants—1 intern and 1 faculty member—said that they did not foresee any long-term benefit.

The main things students might learn that they wouldn't otherwise, is how to make their way through a crisis, how to communicate with patients who need care, and

maybe do some counseling on home care for patients that can't be seen currently.—Faculty

Chiropractic Philosophy

Although we did not ask them about the vitalistic philosophy that guides our institution, participants described how their beliefs about chiropractic and wellness affected their experience during the pandemic. Some said they needed to reconcile their personal beliefs with compliance with public health mandates. Some explicitly disagreed with the mandates and sanitizing procedures but acknowledged the need to ensure that they were followed in the health center.

[The situation] contributed to students' knowledge about where we fit in with the rest of the public health system. Interns and faculty learned how serious we have to be when interacting with the medical system. Even though we are subluxation-based...we can't just say "I'm in tune, so I don't have to be doing this." Makes them realize how different our philosophy and experience with health and disease really is. —Faculty

Others talked more broadly about the role of chiropractic. A faculty mentor said "Students who were there from the start felt the same as I did: value of chiropractic, self-care. They were not afraid, that's why they were here."

I think the first thing that comes to mind, trusting innate intelligence as chiropractors, believing that their immune system is strong...So just trusting chiropractic philosophy, to trust our body's innate ability to heal. —Faculty

In my opinion the traditional medical model is built on crisis care. ...everyone is living in a world where they think that they're not good, they will get sick and they won't get any help until they see the doctor. Once we start to educate patients how to become stronger by getting adjusted, nutrition, exercises, and supplemental care...they're getting switched to a mindset that they should be taking care of themselves. ... At the beginning, I wasn't sure about how powerful chiropractic philosophy is. Now I enforce that philosophy and mindset in my everyday practice with the patients. —Intern

Participants' Recommendations

Some participants said that in case of future pandemics they would recommend education and more information for all clinical staff and interns at the outset. A staff member said that if there are future pandemics, "The [clinical] staff that are not chiropractors, they don't have a background of health. I think educating [non-DC staff] at the very beginning... will help dramatically, to have data, training." Others wanted more written direction about procedures. A faculty member who was present in the clinic while others worked from home said, "My colleagues who've decided not to come in are working from home are getting paid exactly the same that I'm getting paid. ...so, for me, there's an equity situation," and suggested that that there should be equitable scheduling of on-site and remote

work assignments. Many participants strongly recommended that streamlined patient scheduling and other administrative procedures be retained after the SIP ended. They commented about the improved communication, efficiency, and patient flow. A faculty mentor said, "Before...we had no idea who was scheduled because the interns would schedule with patients. Now, we can take a glance and see exactly who's going to be there, when the busy times are."

DISCUSSION

In response to the COVID-19 pandemic and county and state public health mandates,² our college health center closed for 1 week, convened meetings of diverse personnel, formed a task force, and rapidly implemented policies and procedures that conformed to the new and changing public health guidelines and regulations. To our knowledge, Life Chiropractic College West was 1 of the first chiropractic academic health centers to reopen for in-person treatment during a time that guidance from the federal and state-level governments, and state licensing boards was often unclear and contradictory, when it was provided at all.²

During the early stages of the pandemic, internal challenges and external mandates necessitated some reduction in clinical services and affected teaching and learning. While this teaching clinic saw some impact on clinical services and teaching and learning in the initial stages, through collaborative planning and transparent processes, overall access to patient care was sustained, and interns were able to complete their clinical requirements. Moreover, participants said that returning to the health center provided a sense of normalcy and social connection that was missing elsewhere, and that their initial fear and anxiety diminished over time as enhanced safety procedures became routine. Participants reported unanticipated benefits that included improved time management for interns, and streamlined procedures for clinic operations that participants recommended be maintained at the health center beyond the end of the pandemic. That participants said their experiences during the pandemic expanded their understanding of chiropractic philosophy was unanticipated but is not surprising, given Life Chiropractic College West's overall vitalistic perspective.

Our findings are consistent with other reports of rapid responses to the pandemic. Chiropractic programs adapted instruction to meet their educational objectives. Some reduced or suspended in-person visits and transitioned to telehealth, others took measures to minimize the risk of COVID-19 transmission during clinical encounters.¹¹ Faculty internationally said that pandemic-related teaching accommodations had negative effects on students' psychomotor skills, while at the same time enhancing their understanding of theory and the role of manual therapy.¹² Reports about the experiences of medical, physical therapy, and nursing students indicate that clinical education was similarly affected by the pandemic and the need to adapt to safety protocols and social distancing requirements that reduced students' patient contact hours

and learning of usual procedures, while at the same time providing them with unique learning opportunities and new perspectives on clinical and community care.¹³⁻¹⁵ Practicing chiropractors from 11 countries reported that they complied with regulations and mandates by adopting innovative strategies that enabled them to provide ongoing care, albeit sometimes in different or adapted forms and reduced numbers of patients,¹⁶ while others successfully transitioned to chiropractic telehealth formats by leveraging existing infrastructure, teamwork, and interprofessional relationships.¹⁷

This study has several limitations. The small convenience sample and short timeline make it impossible to measure effects on interns' grades or overall academic progression, or to compare them to students who delayed returning to the health center. Therefore, although interns and faculty mentors in our study said they saw potential academic and future professional benefit, we are unable to document this. Even though we explicitly committed to protecting their confidentiality and have no faculty responsibilities or administrative authority over interviewees, participants knew they were being interviewed by researchers from their own institution, possibly biasing their responses. In spite of this, they seemed to speak with a surprising level of candor. The findings from our small sample cannot be said to reflect consensus, particularly because only 3 of the 15 interviewees were student interns. Recruitment of students was difficult because we took steps (eg, no direct or repeated contact) to avoid pressuring them to participate. Nor are the findings generalizable beyond our institution or the unique circumstances of the early stages of the COVID-19 pandemic.

CONCLUSION

Like other institutions, our college adapted its policies and procedures as more became known about the virus and safety guidelines changed. In spite of substantial challenges, the rapid response and flexible approach in the early stages of the pandemic enabled the health center to fulfill the multiple missions of providing patient care, community support, and uninterrupted clinical education to student interns while conforming to public health mandates and guidelines. This is the first pandemic that most of us have experienced; it is not likely to be the last. The experience and lessons learned during the early stages of COVID-19 will help us respond to potential future changes during the current pandemic and prepare for future public health emergencies.

ACKNOWLEDGMENTS

The authors thank Dr Scott Donaldson for providing access to health center personnel for recruitment and participation in this project. The authors acknowledge the work of the Life College of Chiropractic West COVID-19 Task Force, for providing campus-wide guidance on changing regulatory requirements and institutional needs.

FUNDING AND CONFLICTS OF INTEREST

Both authors are employed by Life College of Chiropractic West, which had no part in the design, conduct, or analysis of this manuscript. The authors have no other competing interests to declare. This project received no external funding.

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Concept development: MS, DHO. Design: MS, DHO. Supervision: MS. Data collection/processing: MS, DHO. Analysis/interpretation: MS, DHO. Literature search: DHO. Writing: MS, DHO. Critical review: MS, DHO.

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