School (Dis)Connectedness During Comprehensive Distance Learning: A Mixed-Methods Study

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ABSTRACT

Previous studies suggest that students who attend school consistently are more likely to perceive a connection to their school, teacher, and peers. This mixed-methods study was set in a public middle school in the Pacific Northwest. Extant attendance data and responses to a researcher-generated survey of students who met the state's definition for chronic absenteeism were analyzed to explore changes in students' self-reported feelings of being connected to school, teacher relationships, peer relationships, and school climate before the COVID-19 pandemic and during Comprehensive Distance Learning (CDL). Survey responses from 105 middle school students, all identified as chronically absent in the current school year based on attendance data, suggest a decrease in the way in which positive school relationships are formed, peer relationships are nurtured and maintained, and school climate is cultivated during CDL. These changes have had a significant impact on the degree to which students feel connected to school in a virtual environment. Implications for practice are discussed.

Keywords: Connectedness, Chronic Absenteeism

Chronic absenteeism has a profound impact on student achievement and social outcomes. Children who are chronically absent in early elementary grades are more likely to drop out of high school and more likely to end up in the juvenile justice system (Balfanz & Brynes, 2013). Consequently, chronic absenteeism is likely to have lasting effects into adulthood. Adults who were chronically absent from school are more likely to experience poverty, homelessness, adverse mental health issues, drug use, involvement in the criminal justice system, and have a shorter life expectancy (Henry & Thornberry, 2010; Robert Wood Johnson Foundation, 2016).

Students experiencing poverty, students with disabilities, and students of color are disproportionately affected by chronic absenteeism (Garcia & Weiss, 2018; Ready, 2010). Triplett and Ford (2019) found that "when controlling for gender, language status, special education status, free/reduced lunch eligibility, and giftedness, American Indian and Multiracial students were still more likely to be chronically absent than White students" (pp. 49-50). Because regular attendance has been documented to have extensive positive effects, such findings indicate a need to investigate ways to increase students' school attendance. Students who attend regularly are more likely to have a higher GPA, as well as higher reading and math test scores, and are more likely to graduate on time compared to their peers who are not regular attenders (Gottfried, 2010; Kieffer et al., 2014). Research suggests that there is not one particular factor that drives student attendance in schools.

Among the drivers of improving attendance, students' connectedness with school, often linked to their perception of a positive school climate and supportive relationships with teachers, specifically stand out (Adams et al., 2016; Kidger et al., 2012; Ryan & Deci, 2000). A variety of school and non-school related factors may pose barriers to students feeling connected to school and thus regularly attending. Examples of these barriers include a negative school climate (Berkowitz et al., 2017; Thapa et al., 2013; Van Eck et al., 2017), lack of reliable transportation (Stein & Grigg, 2019), and socio-

economic factors (Ready, 2010), all of which have been heavily researched and have been found to influence students' sense of belonging and connectedness to school.

Climate and Attendance

A driving force in improving student attendance is creating an inclusive school climate where students feel safe and as though they belong (Van Eck et al., 2017). School climate has been defined as the culture and shared beliefs within and about the school and how it functions—room rules and expectations to traditions and cultural norms (Gottfredson et al., 2005). Van Eck et al. (2017) assert that school climate and student perceptions of school climate have a complex but close relationship to student attendance and chronic absenteeism. How a student feels in terms of safety, connectedness, and value all yield varying effects on the likelihood a student will attend school consistently. Van Eck and colleagues established the link between student attendance and climate in their study involving 121 schools serving students in 6th through 12th grade. The study used school self-report data to analyze the relation between school climate perceptions and student attendance. They found that schools with a "positive climate" had a significantly lower chronic absenteeism rate than schools with a "marginal" or "challenged" climate. Van Eck et al. further assert that although there are multiple factors that influence school climate at varying levels, teachers have one of the more visible and influential roles.

Teacher Relationships and Student Connectedness

Van Eck and colleague's research is one of the first to draw a connection between chronic absenteeism and school climate. Although school climate is described in many ways in the literature, teachers remain a constant component, particularly when climate is discussed in terms of student perception of inclusion and safety (Hughes et al., 2015). Despite the importance of teachers and their impact on school climate and student learning experiences, however, the topic of how teachers may influence student attendance is seldom addressed in the literature. Hamlin (2020) researched four different factors often associated with school climate and their individual and combined impact on reducing student chronic absenteeism and found that "personal connectedness" and "relational environment" (described as a student's perception of their belonging and connection to their peers, teachers, and school) can improve student attendance (p. 331). Similarly, Ryan and Deci (2000) reported that students demonstrated strong connections to school when they perceived their teachers cared about them.

Connectedness is the degree to which students feel a sense of belonging to their school and their perception of how well they believe their teachers and peers know who they are (Hamlin, 2020). The belief that one belongs, known as *belongingness*, is highly motivating for students and plays an important role in school engagement, participation, and the drop-out prevention. Osterman (2000) broadly defines belongingness as a student's sense of "relatedness, sense of community, sense of school or classroom membership, support, and acceptance" (p. 343). The belief that one belongs within their educational setting is foundational to connectedness, and the extent to which students will or will not engage with their learning. Student connectedness to their school and teacher also impacts the degree to which students may experience academic success. Adams and colleagues (2016) propose that schools where students express higher levels of perceived trust in their teachers often provide positive learning climates that facilitate students' development. In such positive learning environments, students will begin to internalize the positive, desired behaviors taught by teachers and help to shape a shared community of trust and belonging with other members of the school (Adams et al., 2016).

In their meta-analyses of 250 studies on the effects of school environment on the emotional health of adolescents, Kidger et al. (2012) found that strong student connectedness has a positive impact on student health, and that this, in turn, influences student attendance and prevents absenteeism and dropout rates. School bonding, another concept in the literature similar to connectedness, also encompasses the intersection of health and academic outcomes, especially regarding attendance. Catalano et al. (2004) use "school bonding" as a proxy for "connectedness" (p. 252) and found that students who bond to the staff and the school have more positive long-term outcomes, including a stronger sense of belonging, higher graduation rates, and less chronic absenteeism.

It is important to note that much like chronic absenteeism, students of color are disproportionately "disconnected" from school in a variety of ways and that school leaders must make intentional efforts to reconnect historically marginalized populations. Examining discipline data for the state of Oregon and nationwide reveals that students of color are receiving exclusionary discipline at a higher rate than their white peers. According to 2018-2019 Oregon Department of Education (ODE) state discipline data, disparity in discipline outcomes for Black and Latinx students has persisted for the last three years. Of the total number of students, 12.6% of Black students and 7.4% of Latinx students were more likely to receive severe disciplinary consequences, compared to 6% for their White peers (ODE, 2019). This reality is also reflected in nation-

wide school discipline data from the last decade. The Department of Education discipline data (1998) indicated that although Black children only represent 17% of public-school enrollment nationally, 32% of students who received out-of-school suspensions were Black, whereas White students, at a 63% enrollment, represented only 50% of suspensions and 50% of the expulsions (Department of Education,1998, as cited in The Civil Rights Project, 2000). While school districts across the nation continue to wrestle with disproportionate discipline data and the overrepresentation of students of color in exclusionary discipline, it is imperative that school and district leaders maintain this perspective as they plan for reconnecting these student populations to school.

School Leadership and School Climate

Student connectedness and student perception of belonging to school hinges on the climate and culture that the school develops. Although teachers and their relationships with their students are a foundational component to student connectedness and school climate, school leaders and principals also impact school climate through their leadership style and relationships developed with their staff (Pepper & Thomas, 2002). Teachers who feel supported by their administrator also report experiencing positive working environments and a sense of trust in their professional judgement. When teachers feel empowered and supported by their administrator, their professional practice improves. This improvement happens in instruction as well as developing connection. Staff who feel valued and safe in their school climate and who understand the vision the principal is implementing are more likely to perpetuate that climate. When staff experience trust and safety from building leadership, relationship-building and a climate of safety are then extended to students. The school leader influence on school climate then extends to influencing student achievement (Halawah, 2005). Student learning will improve when such safe and trusting environments are created in their classrooms and their schools (Tschannen-Moran, 2014). To this end, the building principal has a substantial impact on school climate through their coaching and supporting of their teaching staff.

Comprehensive Distance Learning, School Connectedness, and Chronic Absenteeism

When public schools first shut down in March of 2020 due to the surge of COVID-19 cases, chronic absences were already a concern in public schools in Oregon. The ODE 2018-19 Statewide Report Card lists 20.4% of all students as chronically absent (ODE, 2019, p. 68). Within a month of COVID-related school closures, most Oregon school districts resumed instruction online. Although this shift was far from ideal, most school leaders and staff adapted both pedagogically and in terms of policy to accommodate students' changing needs. Despite these efforts, the rate of attendance continued to decline during Comprehensive Distance Learning (CDL). With the introduction of the CDL model, schools shifted into using a different platform for delivering instruction and socialization. It is therefore important to analyze how these changes might have shifted the way students experience connection or disconnection from school, particularly given the documented relation between students' feeling of connection and their school attendance records.

Research Question

What impact has CDL had on chronically absent students' perceived connectedness to school?

METHOD

The exploratory sequential mixed methods design is used to help explain the quantitative information gathered first by using qualitative techniques (Privitera & Ahlgrim-Delzell, 2019, p. 431). In this mixed-methods exploratory study, we examined the impact of CDL on students' perceived connectedness to school, with a particular focus on students who met the state's definition of "chronically absent" (attendance rate of 90% or less). By comparing students' self-reported connectedness before COVID and during CDL, we sought to find the degree to which previously studied aspects—belonging (teacher connectedness, peer connectedness) and climate (help, success)—might have been impacted during CDL.

Setting and Participants

This study includes a convenience sample of students from a public middle school in a mid-sized city in the Pacific Northwest. All students in the school who met the state's definition of chronically absent (attendance rate of 90% or below) were invited to participate in the study. Of the 247 students to whom the survey was sent, we received responses from 105 students within our established timeframe, a response rate of 42.5%. The school and sample demographics are included in

Table 1. The sample demographics matched the demographics of the school's students experiencing chronic absenteeism well, with four exceptions: students identifying as female and students in grade 6 were over-represented, while students identifying as male and students in grade 8 were under-represented.

Table 1

Student Absenteeism Data for September 2020- January 2021 by Race, Gender, and Grade Level

	Categories	Sample Characteristics	Students Experiencing Chronic Absenteeism	Students Enrolled
Race	White	63 (60%)	145 (56%)	226 (61%)
	Hispanic	25 (23.8%)	66 (25.5%)	87 (23%)
	Black	2 (1.9%)	2 (<1%)	3 (<1%)
	Multiple	13 (12.4%)	35 (13.5%)	43 (11%)
	Pacific Islander	2 (1.9%)	3 (<1%)	3 (<1%)
Gender	Female	62 (59%)	120 (46.7%)	189 (51.4%)
	Male	41 (39.1%)	135 (52.5%)	180 (48.5%)
	Non-Binary	2 (1.9%)	2 (<1%)	2 (<1%)
Grade	6th	38 (36.5%)	76 (29.5%)	117 (32%)
	7th	33 (30.8%)	85 (33.1%)	121 (33%)
	8th	34 (31.7%)	96 (37.4%)	131 (35%)
Total Number		105	257	371

Note. The sample included no respondents from American Indian, Asian, or Non-US Native American students. Although the school includes some students from these demographic groups, they represent fewer than 0.10% of students experiencing chronic absenteeism.

Sources of Data

The primary source of data for this study was the researcher-developed student survey, an online survey in which students were asked to respond to both selected and constructed response questions. The student survey was administered in February 2021 to all students who were considered chronically absent at that time. Students responded to ten selected-response questions contrasting their experiences during in-person instruction ("before COVID") and during CDL (e.g., "*Before COVID, I had positive relationships with my teachers.*" and "*I feel connected to my peers this year.*"). Answer options for each of the selected-response questions were provided on a Likert-type scale, with response options varying from 1 (*strongly disagree*) to 5 (*strongly agree*). These data were evaluated to ascertain the degree to which students' self-reported perceptions of teacher relationships, peer relationships, success, and ability to seek help changed during CDL.

The second portion of the student survey included four open-ended questions designed for students to share their thoughts about their connectedness to school that were not captured in the Likert-scale responses. These questions asked students to share their thoughts in their own words in response to question prompts and provided the qualitative data for this study. The responses were used to examine whether chronically absent students reported a difference in their feeling of school connectedness *prior to* as compared to *during* CDL. Four open-ended survey questions asked what students enjoyed about in-person instruction during the year prior to the COVID-19 pandemic as well as what they enjoyed about the CDL model implemented in response to the pandemic. Students also provided narrative responses to questions asking for any additional comments they would like to make about their CDL experiences, as well as what might prompt them to attend school more frequently.

Data Analysis

We analyzed the quantitative data using dependent samples *t*-tests, with alpha set to .05, to check for statistically significant differences in students' self-report data prior to and during CDL for each of the selected-response items on the survey. In analyzing the qualitative data, we followed Creswell and Creswell's (2018) recommendation for qualitative data analysis. First, we organized the response data by grade level. Then, we independently read the data to gather a general

sense of the information. Working together, researchers then began coding the data by organizing student responses into chunks of information and creating one-word representations for each chunk. These codes were then clustered into categories and then further organized into themes. Finally, we made interpretations of the data based on the established themes, pulling out representative quotations from student responses for illustration.

RESULTS

The results of the study demonstrate a shift in student engagement, attendance, and perceived connection to school during the CDL model. The number of students who were chronically absent during SY2020-2021 compared to previous years dramatically increased, and the degree to which students felt connected to school decreased. Our findings, both quantitative and qualitative, suggest that students who believe that they are not connected to school, their teachers, or their peers are less likely to attend school and maintain engagement. We first present the results of our quantitative analyses and then present the results of our qualitative analyses.

Quantitative Comparisons

A dependent samples *t*-test was conducted for each variable, comparing student self-report scores for their experiences pre-COVID and during CDL. Paired comparisons included students' sense of their ability to succeed (*perceived success*), students' knowledge and ability to seek help (*requesting help*), connectedness with peers (*peer relationships*), and connectedness with teachers (*teacher relationships*) before COVID and during CDL. The variable *teacher relationship* was a combined score of student responses to two survey questions. We combined these two questions into one variable because both questions asked students to reflect on their feelings of connectedness to their teachers, although with slightly different focus.

At significance level α = 0.05, we found all paired comparisons to be statistically significant ($p < .001$) with confidence intervals and Cohen's *d* as indicated in Table 2. On average, students who were chronically absent reported a significant degradation of peer relationships or connectedness with peers during CDL. *Peer relationships* had the largest effect size compared to other variables (*d* = 1.03). Other variables, such as *teacher relationships* and *requesting help*, showed a moderate effect size (*d* = 0.61 and 0.54, respectively) whereas *perceived success* had a relatively low effect size (*d* = 0.46).

Table 2

Dependent sample t-test results for comparisons evaluated for connectedness (*n*=105)

	M			*SD*		95% CI	*t*(104)	*p*	Effect size
Variable	PreC	CDL	Mean difference	PreC	CDL	[LL, UL]			
Perceived Success	4.06	3.37	.69	1.20	1.17	[-.40, .97]	4.72	<.001	.46
Requesting Help	3.87	2.98	.89	1.35	1.30	[.57, 1.20]	5.52	<.001	.54
Peer Relationships	4.29	2.50	1.79	1.10	1.33	[1.46, 2.12]	10.60	<.001	1.03
Teacher Relationships	7.72	6.32	1.40	1.92	2.01	[.96, 1.84]	6.27	<.001	.61

Note. PreC = Before COVID; CDL = Comprehensive Distance Learning

Qualitative: Narrative Responses

As we analyzed student responses to the open-ended questions at the end of the survey, three themes emerged: (a) peer socialization and school connectedness, (b) climate/learning environment, and (c) teacher relationships. In the following sections, we share direct quotations from the surveys to illustrate each of the three major themes. These quotations represent repeated references to similar ideas (i.e., *friends* and *socialization*).

Peer Socialization and School Connectedness

The desire for more peer interaction and/or socializing was the most represented theme in the 105 surveys submitted. Students shared a common longing for seeing old friends and making new connections with their peers. Responses such as one eighth grade student who wrote, "I would come to school more often if I could see my friends again" were more common for the seventh and eighth grade students than for the sixth-grade students. Responses from the sixth-grade students shared some similar ideas regarding peer connection, but they also specifically mentioned their desire to develop new connections: "I miss . . . having social interactions, making new friends, and having fun," one sixth-grade student wrote. Students in sixth grade more frequently mentioned "making new friends" as a need than did students from seventh or eighth grade.

CDL and the current model of remote learning may also significantly impact peer connectedness because of the manner in which peers interact. Online virtual meetings (such as Zoom or Google Hangout) became the norm for schools to conduct their synchronous instructional time. These virtual spaces do not lend themselves well to peer interaction because of either their functional capabilities or specific technology limitations. In the school where this study took place, students had their cameras off more often than they have their cameras on, which removed one of the last remaining opportunities for peers to connect with or see each other. This concern echoed throughout a variety of student responses, represented by the following quotation: "I would come to [online] school more often," an eighth-grade student wrote, "if people came to [online] school with their cameras on." In response to the question asking about what they enjoyed about in-person learning the prior year, one seventh-grade student shared, "I get to be more social and not have to look at a screen for hours." This feeling of dissatisfaction with interacting through an iPad or computer screen, and acknowledgement that such interaction is not the same for students as in-person, face-to-face contact, was a common theme across all grade levels in our sample. Students were left with using the same device to engage in their online learning as they used to make connections with their peers. The overall lack of peer connectedness represented in narrative responses points toward a crucial element of the usual educational experience that is missing, thus leaving students feeling more disconnected and less likely to attend school overall.

Teacher Relationships

The importance of having positive relationships with their teachers was also evident in the responses to the student survey. When asked what they missed about in-person instruction, one student experiencing chronic absenteeism shared that they missed, "seeing my . . . teachers and other staff members. And the teachers can explain the subject better." Many students indicated that they believed that in-person interaction with teachers was a better learning experience for students, with references to "hands-on" learning being made numerous times. Students also expressed frustration with the CDL and the online model in relation to effectively managing workload and organization given the reduced teacher support. Responses such as one seventh-grader's reflection that, "Multiple classes are giving too much work and it's very stressful," capture the feeling of being overwhelmed students were experiencing. Several students mentioned that their teachers were not as available to them in CDL to provide support as they were during in-person instruction, where more guided and direct instruction occurred.

As with a desire for interaction with other students, the desire for in-person interaction and connection with teachers was also shared frequently in the survey. One eighth-grade student responded about what was better during in-person instruction: "The connection that I can build with teachers and students in the physical communication and not being through a screen." This represents a number of students who expressed that they were lacking the same level of connection with their teachers during CDL that they had during in-person instruction. Based on the survey responses, it seems evident that for these students experiencing chronic absenteeism, connecting with teachers through a virtual classroom does not provide students with the same quality or depth of connection developed when physically attending school in person. The importance of building positive relationships with teachers was underscored by one sixth-grade student's response in which they related strong teacher connections with their ability to learn: "I can focus and learn more with my teachers [when I have] more social relationships with them."

Learning Environment/Climate

Students reported that the learning environment being their home as opposed to the school building was a barrier to their perceived success in school. One eighth grade student's response that "I like how much more focused I am during in person school, it's hard to be successful when you're at home with so many distractions" was echoed by many others. Such statements demonstrate the preference for in-person learning, as the student perception generally was that learning from

home did not allow for focused attention. A sixth-grade student wrote, "I like the fact of going to school and being in a classroom and not at home where I can get distracted," reflecting on what they preferred about in-person instruction. A common theme throughout the open-ended survey responses of students from all three grade levels was that the distractions at home contributed to the inability for students to focus, and, thus, students believed themselves to be less successful with CDL.

Additional students also referenced the learning environment by discussing the remote learning versus hands-on learning experiences to which they were accustomed. One particular seventh-grade student addressed this challenge, reflecting on why they preferred in-person instruction. "It is on hands learning," the student wrote, "and when I see stuff on paper and do stuff on paper it actually stays in my [brain], because humans need to learn from physical objects." This student's response indicates a preference for more interactive learning experiences that move beyond the capacity of iPads and Zoom meetings. The same student further explained, "Internet and phones and just screens are pointless and things we don't usually need." Such frustration with the overreliance on technology in CDL's was prevalent in many students' responses and was an identified source of dissatisfaction with school. Students also reported feeling a general sense of decreased motivation because of CDL. A seventh-grade student wrote, "I would come to school if I felt more motivated and/or interested in what we are doing when school returns [to the building in some capacity later in the spring]."

Both quantitative and qualitative data provided evidence of students' frustration with the CDL approach to education. The most prevalent themes to emerge focused on a decrease in feeling connected with peers and teachers during the CDL and frustration with the quality of the learning experience.

DISCUSSION

Our study contributes to the growing body of research concerning students' perceived connectedness to school and its relationship to attendance and other related school outcomes. During CDL, there were more opportunities for students to feel disconnected from school. For middle school students, the 2020-2021 school years' experience may have lasting negative implications for their long-term outcomes during high school and beyond. Middle school students who became chronically absent during CDL now bear with them additional risk factor(s) for potential high school dropout and other negative outcomes. It is through this lens that we assert the timeliness of our study and its potential contribution to the field. With the impact student perception of school climate, welcoming, and belonging has on academic achievement, it is imperative that school leaders prioritize relationships and student connection.

Impact of Moving to CDL

The sudden change in what Hamlin (2020) calls the "relational environment" (p. 331) quickly changed the ways in which both teachers and students evaluated the role of technology in education. With a new platform came new barriers to inclusion and access. Students' reluctance to interact on a new educational platform may arise from many social anxieties. For example, the fear of cyber-harassment, or even home environment being visible to those with whom the student might not be comfortable, may prevent them from turning on cameras. Similarly, a lot of other unknowns such as lagging internet or the hardware limitations on issued school devices also contribute to videos not staying on. Aspects such as these impede peer connectedness and contribute to a virtual school climate where social connections are underdeveloped. The lost connections with the classroom community may create a learning environment where seeking help becomes a source of embarrassment and the sense of ability to succeed becomes an existential longing.

In both quantitative and qualitative results, we found that peer interaction is crucial in students' perception of connectedness with school. As stated in the results, this specific variable was associated with the largest effect sizes in terms of students' self-reported perceptions of connectedness with school pre-COVID and during CDL, and it was also a consistent theme in the narrative responses. Socialization through peers is a major predictor of school success. Students in K-12 experience community, sense of belonging, and acceptance through their peers. Loss of interactions and opportunities to interact with peers diminishes student connectedness and may well contribute to chronic absence by cutting out one of the most personally valuable aspects of school for students. The lack of peer connectedness reported during CDL, and the importance of peer relationships for attendance as documented in prior research (Adams et al., 2016; Hamlin, 2020; Kidger et al., 2012), suggests that districts might benefit from explicitly planning activities to address peer connectedness throughout the school year.

Similar to peer relationships, teacher relationships are a variable of interest. Students' statistically-significant self-reported loss of feeling connected to their teachers during CDL, identified through the selected-response survey items and the presence of this theme in the qualitative responses, is indicative of the influence teacher-student relationships can have

on school connectedness. Attendance and outcomes associated with attendance are informed by the relationships that teachers develop with their students (Holt & Gershenson, 2015). In their longitudinal study researching teacher effectiveness based on years of service by analyzing middle school student outcomes, Ladd and Sorenson (2017) found that teachers impact student attendance by developing a sense of classroom community, using engaging instructional strategies, and having students feel welcomed. Decrease in the time students spent interacting with their teachers and reductions in the opportunities for one-on-one interactions with teachers diminish the likelihood that teachers will build that trust. Linked to this degradation in teachers' ability to foster their students' trust is the risk that the year spent in CDL will reduce student comfort in approaching teachers, which, in turn, has the capacity to influence students' willingness to ask for help. In addition, feeling as though their teachers do not know them well might reduce students' belief in their ability to succeed. In sum, the reduced quality of interaction students have had with their teachers during CDL impacts their level of trust, comfort, perceived ability to succeed, and ultimately it impacts their attendance. These degradations in the student-teacher relationship may well have a profound impact on students' learning trajectories.

Connectedness through peers and teachers, a belief in one's ability to succeed, and comfort with seeking help in order to accomplish goals are some of the most important aspects of success in school. Our study suggests that middle school students experiencing chronic absenteeism may well experience negative repercussions in these areas as a result of the move to CDL during the COVID-19 pandemic. Given the documented impact of these aspects of school climate on attendance, school administrators and teachers must provide interventions and supports targeting these areas with increased attention to meeting the needs of students.

Limitations

As with all research, our study has limitations. Because of the nature in which our survey was administered, our analysis was limited in a variety of ways. The present research focused on comparing one sample from two different periods in time across two school years. Because of this comparison, there is a maturation threat present that may have influenced student responses. Additionally, the survey was based on student self-report data. Students who took the survey were asked to consider their perceived experiences about in-person learning while in the then-current context of CDL. Students might have perceived their school experiences prior to school closures as more favorable compared to their educational experiences during the CDL model. It is possible that students reflecting back on their prior experiences might have skewed their responses. Relatedly, students might have reported their CDL experiences as more negative, considering the general dissatisfaction with the CDL model they were experiencing when the survey was administered.

Another limitation for this study involves the manner in which the sample was secured as well as how the students in the sample reported their responses. A convenience sampling method was used, which may increase the likelihood of the results not being representative of the school population more generally. In addition, this approach limits the study's replicability. Due to the CDL approach in place during data collection, students were only accessible via email/online communication. This manner for securing student responses also reduces the likelihood of particular students, specifically infrequent attenders, responded to the survey. Despite these limitations, the demographics of students who responded to the survey closely matched the demographics of the school's students experiencing chronic absenteeism as a whole and were similarly representative of the school's population in terms of demographics. These similarities between the students who completed the survey, those who met attendance eligibility requirements but who did not complete the survey, and the overall student population at the school as a whole support the generalizability of the findings.

A final limitation of this study is that we did not disaggregate the data by additional student demographics, such as race, disability, socioeconomic status, houselessness status, migrant education participation, or other intersections of student identities recorded in the school's student information system. Analyzing the attendance and connectedness data in relation to these different demographics might reveal patterns of how CDL might be disproportionately affecting particular sub-populations in the student sample. Because our sample was limited to just over 100 students, however, there was insufficient statistical power to disaggregate our results by these other characteristics. Thus, we opted to analyze our sample as a whole. A larger sample may have provided opportunities to explore subcategories and their relationship to school connectedness and attendance. This is an area for future research.

Implications and Conclusion

At the time we write this manuscript, schools are battling to stay open and keep students in buildings as COVID variants continue to surge. Across the country, schools and districts are moving back to the CDL model as their local communities continue to have higher rates of COVID. In the past few months, educators have worked to repair the harm done to students'

sense of connectedness to their school by the previous school year's CDL model. The 2020-2021 pandemic-related school closures served as more than an interruption to students' academic progress; the now almost two years of closure interrupted students' ability to connect with each other and with their teachers. With research endeavors appropriately focused on learning loss, we maintain that the loss of connectedness for students may well have as much of an implication on their educational development and unfinished learning.

For middle school students, especially those recently transitioning into middle school, peer and school connectedness are important to their educational success. In many Oregon school districts, the sixth grade is when students make their transition from the elementary school to middle school. This transition is often more complex for students than the transition from middle to high school because of the degree to which they must adapt to an increased school size, staff size, and complex educational programming offered (Balfanz et al., 2007). Our findings indicate CDL compounded this challenge.

Re-engaging students who have disconnected from school due to CDL is a need with which building and district leadership are unfamiliar. The same is true for the current school year, as districts and buildings close due to surges in COVID infections. Concerted efforts must be made to maintain school community and culture within the new guidelines for student health and safety. Reimagining teaching and learning as a social activity and creating innovative means for peer interactions is the need of the hour.

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