



The impact of COVID-19 on Fashion Students' Stress over Teaching Modalities

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Background and Rationale: The COVID-19 pandemic hit higher education particularly hard, with many campuses pivoting to online or hybrid teaching modalities across almost all programs. As universities moved to a virtual world to mitigate the spread of the virus on their campuses, institutions serving communities of color were disproportionately impacted by the health and economic burdens of the pandemic. For instance, Hispanic Serving Institutions (HSI) were faced with the vulnerability of students, faculty, and staff as well their families to the damage that COVID-19 illness created in their communities. Many first-generation college students were forced to figure out how to provide for their families who were experiencing health or financial shocks while still working towards their goals of obtaining a college education (Garces-Jimenez, 2020). While the long-term effects of the COVID-19 Pandemic on higher education for these minority groups are still too early to be fully understood, the overall differences in the level of COVID-19's impact on health and the economy can explain the demographic gaps in the decision to delay graduation, the decision to change major, and preferences for online learning (Aucejo et al., 2020; Cicha et al., 2021). Further, the Centers for Disease Control and Prevention (2021) reported that some racial and ethnic minority groups had less access to high-quality education, so there were limited job options (for minimizing exposure to COVID-19) for them to choose and had less flexibility to leave jobs that put them at a higher risk of exposure to COVID-19. Considering the severity of the impacts that the pandemic had on college students, an investigation of the needs of college students who are experiencing the health and economic burdens of the pandemic could give an insight into helping them achieve higher education. To this end, the purpose of this study was to examine the current downstream effects of the pandemic on fashion merchandising students' fear of severe illness due to COVID-19 and stress over teaching modality as well as discuss implications for educators to enhance their learning experiences at a large HSI in Southwest US.

Method: For the first wave of data collection, we recruited fashion merchandising majors and minors in the Spring 2021 semester to participate in an online survey. After a two-week recruitment period, 76 usable responses were collected. The second wave of the data were collected in the Fall 2021 semester in an intro to fashion merchandising course, which had freshman and transfer students. After a one-week period, a total of 139 usable responses were collected for analysis (n = 251). A measurement of the health impact (e.g., fear of severe illness due to COVID-19) was adapted from a study of Arizona State University students (Aucejo et al., 2020). Students were asked to quantify their classes in various teaching modalities (e.g., fully online, variations of hybrid learning, fully in-person, etc.) and reported their stress level for the

different teaching modalities. Basic demographics including gender, age, ethnicity, and classification were gathered. Ethnicity was used to split the students into two groups (non-white and white) that were used as a proxy for the impact of COVID-19 related health impact disparities (e.g., high and low impact) experienced by families of different ethnicities.

Results: A series of T-tests were performed to analyze stress level over teaching modality between groups with or without fear of severe illness due to COVID-19. Among five different teaching formats, there was a significant difference in fully face-to-face between the groups (See Table 1). The group with fear of severe illness due to COVID-19 had a higher stress level for fully face-to-face classes.

Table 1: Group Differences for stress level over teaching modality between groups with or without fear of severe illness due to COVID-19 (1=Least Stressful, 10=Most Stressful)

Teaching Modality	Not fear of illness		Fear of illness		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Fully face-to-face	3.65 ^a	2.86	4.79 ^a	3.11	-1.98	150	.050
Mostly face-to-face with some online sessions	4.55 ^b	2.38	4.14 ^b	2.61	.47	58	.640
Some face-to-face and some online sessions	4.06 ^a	2.41	4.45 ^b	2.40	-.99	212	.324
Entirely online with live sessions	4.75 ^b	3.50	5.02 ^a	2.85	-.54	212	.587
Entirely online with no live sessions	5.64 ^b	3.74	5.10 ^a	3.61	.78	154	.437

Note: Means in a column that share a group letter are not significantly different based on a t-test

There were Ethnicity group differences for fear of severe illness due to COVID-19. There was a significant difference between the two ethnicity groups (See Table 2). Non-white students were more fearful of severe illness due to COVID-19.

Table 2: Ethnicity group differences for fear of severe illness due to COVID-19

	High impact (Non-white)		Low impact (White)		<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Fear of severe illness	1.45	1.26	1.02	.97	2.84	211.454	.005

Discussion/Implications: The student group with a higher level of fear of severe illness due to COVID-19 reported more stress over fully face-to-face classes than the group that had a lower level of fear. Among the group with fear of severe illness, the stress level over *mostly face-to-face with some online sessions* and *some face-to-face and some online sessions* was significantly lower than other three teaching formats. This implies that a class that is *face-to-face format with*

some online sessions can reduce stress level for those who are fearful of severe illness due to the pandemic. Furthermore, the non-white student group had a higher level of fear of severe illness due to COVID-19 than the white student group. Our study demonstrated that the Black and Latino populations were more vulnerable, worried more about getting COVID-19, and experienced more negative effects related to the pandemic due to lower knowledge levels of COVID-19 on personal prevention practices, symptoms, and when to seek care (Alobuia et al., 2020; Alsan et al., 2020; Jones et al., 2020). The changes in higher education and the impacts on students due to the pandemic will be long lasting and may not end simply because a specific region experiences a whole semester without a severe outbreak of the latest variant. Some programs may choose to keep certain aspects of modalities used during the various stages of the pandemic, either for budgetary reasons or to meet the needs of their students in other ways. Understanding the impact of the pandemic learning experience on vulnerable students is necessary to make good decisions in the future.

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