Surveying Student Health Professionals to Assess Source of Information Utilization early during the COVID-19 Pandemic

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Background

- During the COVID-19 pandemic, news outlets and social media were utilized as extensive methods for the dissemination of information about the pandemic, identification of new scientific studies, and sharing of diagnostic and treatment options.
- it is exceedingly vital to ensure that the information derived from these sources is accurate, peer-reviewed, and obtained from a reliable source.
- social media can have numerous advantages, it can portray information that is not current, exaggerated, or falsified. This can induce fear, stress, and invalid perceptions regarding the COVID-19 virus.
- Additionally, It is of the utmost importance for healthcare professionals to obtain their information from reliable sources. Healthcare professionals have a predominant role in relaying information to patients, providing necessary treatment, and minimizing the spread of the virus. Therefore, inaccurate information can have dire effects.
- Our study aims to investigate the information sources utilized by students in healthcare professions and the extent to which students feel like they are well-informed.

Hypothesis

- Information sources will be similar between the students in various healthcare professions
- Social media will be a predominant source of information

Methods

- Survey questions were developed to assess student attitudes, perceptions, and behaviors surrounding the pandemic and were provided to participants in April 2020 after review and approval by educational offices at the University of Colorado Anschutz Medical Campus.
- The questionnaire was delivered anonymously through the Qualtrics platform. Dental, Graduate, Medical, Nursing, Physician Assistants, Pharmacy, and School of Public Health students responded to the survey (total n=302).
- Self-reported Likert scale frequencies of COVID-19 information source usage were analyzed by student age group, gender, training program, how well-informed students felt about COVID-19, and minutes spent per day learning about the pandemic in the month leading up to the survey using Pearson's chi-squared.
- Significant correlations warranted further examination.

Results

- How well-informed students felt was significantly correlated with gender (p=0.01, men were more likely to feel informed) and greater time spent per day on COVID-19 learning (p=0.0003).
- More time spent was significantly correlated with older age (p = 0.02, more students aged 31 and older dedicated >40 minutes/day to learning about the virus), reading local public health department updates (p=0.009), government/Centers for Disease Control updates (p=0.02), and studying coronavirus-related coursework (p=0.01) .
- Women were slightly more likely to consult friends and family as a source of COVID-19 news (p =0.01).

Results

- Older students were also more likely to read newspapers (p = 0.0002) and scientific literature (p = 0.0002) for information, and less likely to use social media (p = 0.01) or rely on friends and family (p = 0.001).
- Lastly, MD program students more often utilized coursework (p=0.0004) and other healthcare professionals (p=0.0003) as resources, as compared to students in other training programs.

Participant Characteristics	Pearson's Chi-Squared	Well-Informed	Time Spent Per Day	News Radio	Newspaper	School Updates	Public Health Department
Training Program	X2	7.3221	6.8012	4.6318	5.7912	13.308	12.87
	p-value	0.2921	0.3396	0.8652	0.7606	0.1492	0.1686
Age Group	X2	3.5307	11.801	3.8965	12.39	1.3223	9.525
	p-value	0.4732	0.0189	0.6907	0.05382	0.9704	0.1461
Gender	X2	9.1087	0.238	0.08055	0.9795	1.8298	5.1202
	p-value	0.01052	0.8878	0.9941	0.8062	0.6085	0.1632
Feel Well-Informed	X2	N/A	21.465	11.784	13.491	3.4924	8.2708
	p-value	N/A	0.0002561	0.06697	0.03587	0.745	0.2189
Time Spent Per Day	X2	21.465	N/A	4.8628	27.523	2.9699	13.576
	p-value	0.0002561	N/A	0.5615	0.0001155	0.8126	0.03475

Participant Characteristics	Pearson's Chi-Squared	Government	Social Media	Friends and Family	Healthcare Professionals	Courses	Scientific Literature
Training Program	X2	12.34	10.179	3.7891	24.937	32.4	7.7918
	p-value	0.1948	0.3362	0.9247	0.003042	0.0001698	0.5553
Age Group	X2	10.288	17.359	14.405	3.0263	5.4371	21.182
	p-value	0.113	0.00805	0.02543	0.8055	0.4891	0.001702
Gender	X2	10.045	2.0943	7.6283	1.3732	3.9419	2.6609
	p-value	0.01819	0.5531	0.05435	0.7118	0.2678	0.4469
Feel Well-Informed	X2	13.137	4.0676	6.7121	16.479	6.4527	8.8746
	p-value	0.04093	0.6675	0.3483	0.0114	0.3744	0.1808
Time Spent Per Day	X2	9.0453	3.019	4.0809	10.831	10.899	32.689
	p-value	0.171	0.8065	0.6657	0.09374	0.09155	1.20E-05

Table 1. Results of Pearson's chi-squared depicting the variables that have a significant association

Conclusions

- Gender and age play a significant role in feeling more informed and time spent learning about COVID-19, respectively.
- Training program also had an impact on sources of information used.
- Source utilization had a significant relationship with age, especially.
- More research is needed for ways to standardize education about the utilization of reliable and peer-reviewed sources; this should target curriculum accommodations and professors.