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### RESEARCH ARTICLE

A Proposal of Utilizing Six Types of Involvement Model to Guide Kindergarten to 12th Grade School Parental Communication and Support During a Pandemic

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## **ABSTRACT**

Background: Effective communication between schools and parents is crucial for fostering understanding, trust, and collaboration to enhance educational outcomes and student well-being, especially during crises such as the COVID-19 pandemic. Moreover, the current level of communication between schools and families is frequently insufficient, exacerbating the difficulties in parental engagement, comprehension, and certain policy implementation. This deficiency becomes even more pronounced during crises due to the added stressors. This study aims to highlight the challenges of parental engagement and communication during the pandemic and propose a viable solution for school districts and schools to enhance trust, understanding, and collaboration in schools to prepare for future crises.

Method: The study employs a mixed-methods approach, including a scoping review of literature and policies on school communication during the pandemic, a survey study conducted among the Connecticut Independent Schools, and the integration of results from both sources. The scoping review provides key themes and frameworks, while the survey collects quantitative and qualitative data to identify challenges and concerns. The proposed solution utilizes Epstein's Six Types of Involvement Framework for school districts and schools to guide effective communication and collaboration between schools and parents. Results: The scoping review and survey findings reveal several key issues, including hesitant parental perception of disease control strategies, the burden on parents in supporting online learning, the lack of resources and guidance for online learning, and the absence of central communication guidelines. The proposed solution, Epstein's Six Types of Involvement Framework, addresses these challenges by emphasizing parenting, communication, volunteering, learning at home, decision-making, and community collaboration.

Conclusion: The study highlights the importance of effective communication between schools and parents during crises and proposes Epstein's Six Types of Involvement Framework as a comprehensive solution. By implementing this framework, schools can foster understanding, trust, and collaboration, leading to better educational outcomes for students. The findings have implications for school administrators, policymakers, and educators seeking to improve communication during crises and can facilitate more effective communication and parental engagement beyond health crises. Further research is needed to evaluate the effectiveness and impact of implementing the framework in real-world crises. Moreover, healthcare professionals like pediatricians, psychologists, and school nurses are crucial in disease control in schools. The study proposes using Epstein's framework to involve them directly, enhancing collaboration and trust, and empowering them to lead efforts in safeguarding students and staff health.

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## Introduction

Effective communication between schools and parents is a vital component for fostering understanding, trust, and collaborative efforts toward enhancing educational developmental outcomes, especially during a crisis. Despite its importance, existing schoolhome communication is far from optimal. A survey conducted among Kindergarten to 12th grade public school teachers in the United States revealed that 50% Kindergarten to 12th grade public school teachers rated parental involvement in their children's education as inadequate, with 48% reporting inadequate parental understanding of the curriculum (Ozmen et al., 2016). The challenges posed by the COVID-19 pandemic have further compounded this gap in communication, highlighting an urgent need to develop comprehensive communication guidance and model. In this study, the pivotal roles of health professionals in facilitating effective communication channels between schools and parents during crises like the COVID-19 pandemic cannot be overstated. Their expertise in health communication, empathy, and understanding of diverse community needs are instrumental in bridging gaps and fostering resilience in educational environments.

The purpose of this paper is to identify key challenges of parental engagement and communication during the COVID-19 pandemic, to provide a viable solution to enhance trust and understanding and foster better support and collaboration in schools during the current and future crises. In section IV, the paper commences with a literature and policy analysis exploring the difficulties in

parental support and school communication during the COVID-19 crisis in the United States. We supplement this document review with survey and interview data from 6th-12th grade (or middle and high) schools in Connecticut. In section V, we propose to solution that entails develop а development of a communication framework to guide school districts and administrators to communicate effectively and expeditiously with different stakeholders, addressing the discrepancy in perceptions and needs. Our findings will be most relevant to school administrators and politicians seeking to communicate effectively during a crisis like the COVID-19 pandemic. It may also facilitate more effective communication and parental engagement outside of health crises.

# Methods

In this study, we used multiple sources of information to outline the school-parental communication challenges and proposed a potential solution for better communication during a crisis like the pandemic. First, we conducted a scoping review and extracted key themes from studies related 12th Kindergarten arade school to communication challenges (Section IIIA). Second, we used survey tools to investigate concerns related to the pandemic and for members communication Connecticut Independent Schools during the pandemic (Section IIIB). Third, we integrated the results from the scoping review and findings from the survey to outline Kindergarten to 12th grade school-parental communication challenges and proposed Epstein's Six Types of Involvement framework as an interventional construct to guide and aid communication (Section IIIC). Through these three interconnected components, our study aims to provide insights into the school-family communication processes brought about by the COVID-19 crisis and offer practical recommendations for supporting the well-being of school members during a crisis. Below are the detailed methods employed in each of the three parts of the study:

## A. SCOPING REVIEW

We conducted a scoping review Kindergarten to 12th grade schools in the United States. whose protocol details have been published previously (Li et al., 2021). Articles related to school communication and pandemic perceptions were identified and key results and themes were summarized. First, we focused on and outlined schoolfamily challenges in Section IV [Issues]. In addition, we reviewed existing school-based communication frameworks and selected Epstein's Six Types of Involvements as our interventional construct in Section [Solution].

## **B. SURVEY STUDY**

B.1 Participant and Context This survey was conducted from October 2020 to April 2021 in private schools affiliated with the Connecticut Association of Independent Schools (CAIS). The following were the inclusion criteria for parents and staff respondents: (1) English-speaking; (2) having consent for study participation. Investigators had private access to data via encrypted drives.

**B.2 Survey Instruments** Surveys used the Coronavirus Safety Behaviors Scale, the Preventive COVID-19 Behavior Scale, and the Johns Hopkins University COVID-19

Community Response Survey to measure their perceived COVID risks and attitudes towards preventative behaviors and policies. The survey questions and responses are presented in Table 2-4. We also included open-ended questions for respondents to submit their concerns and comments.

**B.3 Survey Administrations and Enrollment** The study was approved by Yale School Public Health's Institutional Review Board (#2000028873). These survey tools were emailed to eligible participants using Qualtrics® software to ensure anonymity and data privacy. We conducted three rounds of surveys for parents and staff. The initial survey round was administered between October and November 2020, while data for the second round was collected in January 2021, and the final round was conducted in April 2021. There are a total of 1784 staff and 13974 parents who were invited to participate in the study. 609, 41, and 66 parents responded to survey rounds one, two, and three, respectively. 309, 22, and 15 staff responded to survey rounds one, two, and respectively. The demographics information of the parent and staff survey participants are presented in Appendix II.

B.4 Quantitative Analysis We used descriptive statistics to describe the basic features of the data collected. We analyzed the distribution, central tendency, dispersion, and pattern of each variable. For descriptive purposes, we expressed categorical variables as proportions and continuous variables as means, medians, and standard deviations (SD). We made comparisons between answers in surveys that were administered at different time points, and between parent and staff surveys, using  $\chi 2$  and fisher's exact test, as

appropriate, with statistical significance defined as p<0.05 (2-tailed. We similarly summarized respondents' characteristics using descriptive statistics.

B.5 Qualitative Analysis The responses to open-ended questions were reviewed and coded using Microsoft Word® to determine patterns and constructs through thematic analysis. This analysis is guided by the following steps according to Guest et. al., (2012): (1) familiarization, and organization of responses; (2) identification of themes; (3) review and analysis of themes to determine structures or constructs and; (4) construction of the theoretical model vis-à-vis new data. It sought to unpack constructs (Vaismoradi et. al, 2013) of the Reach, Effectiveness, Adoption, Implementation, and Maintenance framework (RE-AIM) that is contextualized at private schools' issues and approaches towards communication and concerns amid COVID-19.

#### C. INTEGRATION OF THE RESULTS

In our integrated approach, we combined the results from our survey study, key findings scoping from the review, and interventional assessment, to provide comprehensive analysis that can inform school policies. The mixed-methods fashion allowed us to provide a more complete picture of school-parent communication issues. We identified four key issues from our analysis of literature reviews, surveys, and open-ended questions: (a) hesitant perception among parents regarding disease control strategies; (b) the burden of disease control strategies for parents; (c) lack of guidance and for schools establish resources to communication and; (d) lack of timely communication. With the findings in mind, we

propose a solution that is anchored to Epstein's six types of involvement framework to strengthen partnerships between communities, families, and schools towards better collaboration vis-à-vis communication.

## Results

ISSUE I- PARENTS HOLD A MORE HESITANT PERCEPTION OF DISEASE CONTROL STRATEGIES THAN STAFF

We found a discrepancy in knowledge and attitudes toward the pandemic and diseasecontrol strategies between school staff and parents. At the beginning of the pandemic, although school closure was widely adopted to prevent the spread of the pandemic, as demonstrated in 130 out of 193 countries (Daniela et al., 2021), many parents posited a negative attitude towards closures and certain disease control policies. Our survey showed that, compared to school staff, parents are more hesitant to trust the effectiveness of disease various prevention measures. Notably, 14% of parents believed that closing schools has no impact on disease prevention, while only 4% of staff members held this opinion. Moreover, while only 10% of parents agree that school closures are extremely effective in preventing the spread of disease, 13% of staff members share this perspective (Table 2-3). A greater proportion of school staff members believe that closing gyms, shops, and restaurants, wearing masks, and avoiding crowds and public spaces are effective means to prevent the spread of disease, in contrast to parents (Table 4). More staff than parents believes that mandatory mask wearing can help prevent transmission of COVID-19 (Table 5). The reasons behind such disagreements are



multifarious, ranging from beliefs that the illness is mild and school closures are unwarranted to doubts regarding the

effectiveness of school closures in curbing infection rates (Brooks et al., 2020).

Table 2. Kindergarten to Grade 12 Parent and Staff Perceived COVID-19 Risks Parent 2 P Values Parent 1 Parent 3 Your child will be infected (n1 = 607; n2 = 39; n3 = 121) 1.892e-07 <u>%</u> % <u>Answer</u> Count <u>%</u> Count Count No chance 0.49% 3 2.56% 1 3.31% 4 Very small chance 32.78% 199 51.28% 20 48.76% 59 Medium chance 55.35% 336 41.03% 16 34.71% 42 2 3 High chance 6.1% 37 5.13% 2.48% Very high chance 2.97% 0.00% 0 0.83% 1 18 Absolutely sure 0.33% 2 0.00% 0 0.00% 0 1.98% 0.00% 0 9.92% This has already happened 12 12 Staff 1 Staff 2 Staff 3 P Values You will be infected on your school's campus (n1 = 380; n2 = 23; n3 = 32) 0.0093 Count Count % % % Count Answer 5 1.32% 4.35% 1 3.13% 1 No chance Very small chance 47.63% 181 60.87% 14 75% 24 Medium chance 42.11% 160 30.43% 7 12.5% 4 High chance 6.25% 2 6.05% 23 0.00% 0 9 0 Very high chance 2.37% 4.35% 1 0.00% 0 Absolutely sure 0.00% 0 0.00% 0 0.00% 3.13% 2 This has already happened 0.53% 0.00% 0 1 Parent 2 P Values Parent 1 Parent 3 Someone in your child's direct environment (family, friends, colleagues) will be 0.0089 infected (n1 = 606; n2 = 39; n3 = 121) % % Count % Count Count Answer 0.33% 2 0.00% 0 0.00% 0 No chance 17.66% 107 23.08% 9 31.4% 38 Very small chance

Medium chance	42.57%	258	43.59%	17	33.88%	41	
High chance	20,96%	127	12.82%	5	15.7%	19	
Very high chance	6.6%	40	2.56%	1	2.48%	3	
Absolutely sure	2.64%	16	0.00%	0	0.83%	1	
This has already happened	9.24%	56	17.95%	7	15.7%	19	
	Staf	f 1	Staf	ff 2	Sta	ff 3	P Values
	omeone in your direct environment (family, friends, colleagues) will be $n = 381$ ; $n = 23$ ; $n = 32$ )						0.054
Answer	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
No chance	0.26%	1	0	0	0	0	
Very small chance	19.95%	76	21.74%	5	50%	16	
Medium chance	50.39%	192	47.83%	11	34.38%	11	
High chance	14.44%	55	17.39%	4	12.5	4	
Very high chance	6.82%	26	0.00%	0	0.00%	0	
Absolutely sure	1.84%	7	0.00%	0	0.00%	0	
This has already happened	6.3%	24	13.04	3	3.13%	1	
	Parei	nt 1	Pare	nt 2	Pare	nt 3	P Values
Your child will have to go t = 39; n3 = 121)	to the hos	pital if t	hey get th	ne infecti	on (n1 =	606; n2	<0.005
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
No chance	9.41%	57	17.95%	7	11.57%	14	
Very small chance	68.48%	415	56.41%	22	70.25%	85	
Medium chance	16.5%	100	20.51%	8	11.57%	14	
High chance	2.97%	18	2.56%	1	2.48%	3	
Very high chance	0.5%	3	0	0	3.31%	4	
Absolutely sure	2.15%	13	2.56%	1	0.83%	1	
This has already happened	0.00%	0	0.00%	0	0.00%	0	
	-	_	-				

	Staf	f 1	Staf	ff 2	Sta	ff 3	P Values
You will have to go to the $n3 = 32$ )	hospital i	f you ge	et the infe	ction (n1	= 380; r	12 = 23;	<0.005
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
No chance	2.11%	8	0.00%	0	9.38%	3	
Very small chance	48.68%	185	52.17%	12	56.25%	18	
Medium chance	34.21%	130	34.78%	8	21.88%	7	
High chance	8.16%	31	4.35%	1	6.25%	2	
Very high chance	5.79%	22	4.35%	1	0	0	
Absolutely sure	1.05%	4	4.35%	1	6.25%	2	
This has already happened	0.00%	0	0.00%	0	0.00%	0	
	Parei	nt 1	Pare	nt 2	Pare	nt 3	P Values
Your child will have to go i or not $(n1 = 603; n2 = 39;$	' <u>-</u> '		depender	nt of ther	n being i	nfected	2.75E-06
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
No chance	1%	6	2.56%	1	4.17%	5	
Very small chance	16.58%	100	15.38%	6	28.33%	34	
Medium chance	35.49%	214	46.15%	18	31.67%	38	
High chance	24.05%	145	17.95%	7	13.33%	16	
Very high chance	11.11%	67	0.00%	0	0.83%	1	
Absolutely sure	2.82%	17	7.69%	3	3.33%	4	
This has already happened	8.96%	54	10.26%	4	18.33%	22	
	Staf	f 1	Staf	ff 2	Sta	ff 3	P Values
You will have to go into q	arantine independent of you being infected or not				0.012		
(n1 = 379; n2 = 23; n3 = 3	2)	•					
(n1 = 379; n2 = 23; n3 = 3) <u>Answer</u>	2) <u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
Answer		Count 2	<u>%</u>	Count 0	<u>%</u>	Count 0	
Answer	<u>%</u>						
Answer No chance	<u>%</u> 0.53%	2	0.00%	0	0.00%	0	

12.14%	46	4.35%	1	0.00%	0	
3.69%	14	0.00%	0	9.38%	3	
6.07%	23	4.35%	1	3.13%	1	
Parei	nt 1	Pare	nt 2	Pare	nt 3	P Values
and the	y will inf	ect some	one else	(n1 = 60	)7; n2 =	5.34E-09
<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
1%	6	2.56%	1	4.17%	5	
16.58%	100	15.38%	6	28.33%	34	
35.49%	214	46.15%	18	31.67%	38	
24.05%	145	17.95%	7	13.33%	16	
11.11%	67	0.00%	0	0.83%	1	
2.82%	17	7.69%	3	3.33%	4	
8.96%	54	10.26%	4	18.33%	22	
Staf	f 1	Staf	ff 2	Sta	ff 3	P Values
you will in	nfect sor	neone els	e (n1 = 3	380; n2 =	= 23; n3	0.085
<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
1.32%	5	4.35%	1	3.13%	1	
41.58%	158	43.48%	10	62.5%	20	
45.53%	173	43.48%	10	18.75%	6	
07.11%	27	4.35%	1	12.5%	4	
3.16%	12	4.35%	1	0.00%	0	
0.53%	2	0.00%	0	0.00%	0	
0.79%	3	0.00%	0	3.13%	1	
	3.69% 6.07% Parel d and the % 1% 16.58% 35.49% 24.05% 11.11% 2.82% 8.96% Staf you will in % 1.32% 41.58% 45.53% 07.11% 3.16% 0.53%	3.69% 14 6.07% 23  Parent 1  d and they will info 1% 6 16.58% 100 35.49% 214 24.05% 145 11.11% 67 2.82% 17 8.96% 54  Staff 1  you will infect sore	3.69%       14       0.00%         6.07%       23       4.35%         Parent 1       Parent 3         Mand they will infect some         2       Count       %         1%       6       2.56%         16.58%       100       15.38%         35.49%       214       46.15%         24.05%       145       17.95%         11.11%       67       0.00%         2.82%       17       7.69%         8.96%       54       10.26%         Staff         you will infect someone else         2       Count       %         1.32%       5       4.35%         41.58%       158       43.48%         45.53%       173       43.48%         45.53%       173       43.35%         07.11%       27       4.35%         0.53%       2       0.00%	3.69%       14       0.00%       0         6.07%       23       4.35%       1         Parent 2         d and they will infect someone else         ½       Count       ½       Count         1%       6       2.56%       1         16.58%       100       15.38%       6         35.49%       214       46.15%       18         24.05%       145       17.95%       7         11.11%       67       0.00%       0         2.82%       17       7.69%       3         8.96%       54       10.26%       4         You will infect someone else (n1 = 3)       3         ½       Count       ½       Count         1.32%       5       4.35%       1         41.58%       158       43.48%       10         45.53%       173       43.48%       10         07.11%       27       4.35%       1         3.16%       12       4.35%       1         0.53%       2       0.00%       0	3.69%       14       0.00%       0       9.38%         6.07%       23       4.35%       1       3.13%         Parent 2       Parent 2         A and they will infect someone else (n1 = 60 or other someone else (n2 else)         36       Count       %       Count       %         16.58%       100       15.38%       6       28.33%         35.49%       214       46.15%       18       31.67%         24.05%       145       17.95%       7       13.33%         11.11%       67       0.00%       0       0.83%         2.82%       17       7.69%       3       3.33%         8.96%       54       10.26%       4       18.33%         Staff 2       Star         you will infect someone else (n1 = 380; n2	3.69%       14       0.00%       0       9.38%       3         6.07%       23       4.35%       1       3.13%       1         Parent 1       Parent 2       Parent 3         4 and they will infect someone else (n1 = 607; n2 =         %       Count       %       Count       %       Count         1%       6       2.56%       1       4.17%       5         16.58%       100       15.38%       6       28.33%       34         35.49%       214       46.15%       18       31.67%       38         24.05%       145       17.95%       7       13.33%       16         11.11%       67       0.00%       0       0.83%       1         2.82%       17       7.69%       3       3.33%       4         8.96%       54       10.26%       4       18.33%       22         Staff 2       Staff 3         you will infect someone else (n1 = 380; n2 = 23; n3         %       Count       %       Count         1.32%       5       4.35%       1       3.13%       1         41.58%       <

	Parei	Parent 1 Parent 2 Parent 3				P Values	
Someone in your child's d (n1 = 607; n2 = 39; n3 = 1	ur child's direct environment (family, friends, teachers) will die 39; n3 = 121)						0.10
Answer	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
No chance	5.93%	36	2.56%	1	8.26%	10	
Very small chance	66.56%	404	69.23%	27	62.81%	76	
Medium chance	20.43%	124	17.95%	7	16.53%	20	
High chance	3.29%	20	2.56%	1	2.48%	3	
Very high chance	1.65%	10	0	0	2.48%	3	
Absolutely sure	0.16%	1	0	0	1.65%	2	
This has already happened	1.98%	12	7.69%	3	5.79%	7	
	Staf	f 1	Staf	ff 2	Sta	ff 3	P Values
You will get infected and y = 32)	you will in	ıfect sor	neone els	e (n1 = 3	380; n2 =	= 23; n3	0.085
Answer	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
No chance	1.32%	5	4.35%	1	3.13%	1	
Very small chance	41.58%	158	43.48%	10	62.5%	20	
Medium chance	45.53%	173	43.48%	10	18.75%	6	
High chance	7.11%	27	4.35%	1	12.5%	4	
Very high chance	3.16%	12	4.35%	1	0.00%	0	
Absolutely sure	0.53%	2	0.00%	0	0.00%	0	
This has already happened	0.79%	3	0.00%	0	3.13%	1	

	Pare	Parent 1 Staff 1					
Your child will be infected (n1 = 607; n2 = 380)							
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count			
No chance	No chance 0.49% 3 1.32% 5						
Very small chance	32.78%	199	47.63%	181			
Medium chance	55.35%	336	42.11%	160			

			- ' '		
High chance	6.1%	37	60.5%	23	
Very high chance	2.97%	18	2.37%	9	
Absolutely sure	0.33%	2	0.00%	0	
This has already happened	1.98%	12	0.53%	2	
	Pare	nt 2	Staf	f 2	P Values
Your child will be infected (n1 = 39	9; n2 = 23)				0.49
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	
No chance	2.56%	1	4.35%	1	
Very small chance	51.28%	20	60.87%	14	
Medium chance	41.03%	16	30.43%	7	
High chance	5.13%	2	0.00%	0	
Very high chance	0.00%	0	4.35%	1	
Absolutely sure	0.00%	0	0.00%	0	
This has already happened	0.00%	0	0.00%	0	
	Pare	nt 3	Staf	f 3	P Values
You will be infected on your schoo	l's campus (n	1 = 121; n2	2 = 32)	0.035	
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	
No chance	3.31%	4	3.13%	1	
Very small chance	48.76%	59	75%	24	
Medium chance	34.71%	42	12.5%	4	
High chance	2.48%	3	6.25%	2	
Very high chance	0.83%	1	0.00%	0	
Absolutely sure	0.00%	0	0.00%	0	
This has already happened	9.92%	12	3.13%	1	
	Pare	nt 1	Staf	f 1	P Values
Someone in your child's direct entirected (n1 = 606; n2 = 381)	vironment (fai	mily, friend	s, colleague	es) will be	0.054
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count	
N. a. alagana	0.33%	2	0.26%	1	
No chance	0.55%	_	0.2070	'	

Medium chance	42.57%	258	50.39%	192	
High chance	20.96%	127	14.44%	55	
Very high chance	6.6%	40	6.82%	26	
Absolutely sure	2.64%	16	1.84%	7	
This has already happened	9.24%	56	6.3%	24	
	Pare	nt 2	Staf	f 2	P Values
Someone in your child's direct envir infected (n1 = 39; n2 = 23)	your child's direct environment (family, friends, colleagues) will be = 39; n2 = 23)				0.96
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count	
No chance	0.00%	0	0.00%	0	
Very small chance	23.08%	9	21.74%	5	
Medium chance	43.59%	17	47.83%	11	
High chance	12.82%	5	17.39%	4	
Very high chance	2.56%	1	0.00%	0	
Absolutely sure	0.00%	0	0.00%	0	
This has already happened	17.95%	7	13.04%	3	
	Pare	nt 3	Staf	f 3	P Values
Someone in your direct environment (n1 = 121; n2 = 32)	(family, frie	nds, collea	gues) will be	e infected	0.25
Answer	<u>%</u>	Count	<u>%</u>	Count	
No chance	0.00%	0	0.00%	0	
				İ	
Very small chance	31.4%	38	50%	16	
Very small chance  Medium chance	31.4%	38 41	34.38%	16	
Medium chance	33.88%	41	34.38%	11	
Medium chance High chance	33.88% 15.7%	41 19	34.38% 12.5%	11	

	Pare	nt 1	Staf	f 1	P Values	
Your child will have to go to the = 380)	e hospital if they	get the in	fection (n1	= 606; n2	<0.005	
Answer	<u>%</u>	Count	<u>%</u>	Count		
No chance	9.41%	57	2.11%	8		
Very small chance	68.48%	415	48.68%	185		
Medium chance	16.5%	100	34.21%	130		
High chance	2.97%	18	8.16%	31		
Very high chance	0.5%	3	5.79%	22		
Absolutely sure	2.15%	13	1.05%	4		
This has already happened	0.00%	0	0.00%	0		
	Pare	nt 2	Staf	f 2	P Values	
Your child will have to go to the hospital if they get the infection ( $n1 = 39$ ; $n2 = 23$ )						
Answer	<u>%</u>	% Count % Count				
No chance	17.95%	7	0.00%	0		
Very small chance	56.41%	22	52.17%	12		
Medium chance	20.51%	8	34.78%	8		
High chance	2.56%	1	4.35%	1		
Very high chance	0	0	4.35%	1		
Absolutely sure	2.56%	1	4.35%	1		
This has already happened	0.00%	0	0.00%	0		
	Pare	nt 3	Staf	f 3	P Values	
You will have to go to the hospi	tal if you get the	e infection	(n1 = 121; n	2 = 32)	0.11	
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count		
No chance	11.57%	14	9.38%	3		
Very small chance	70.25%	85	56.25%	18		
Medium chance	11.57%	14	21.88%	7		
High chance	2.48%	3	6.25%	2		

Absolutely sure	0.83%	1	6.25%	2	
This has already happened	0.00%	0	0.00%	0	
	Pare	nt 1	Staf	f 1	P Values
Your child will have to go into o or not (n1 = 603; n2 = 379)	quarantine indep	pendent of	them being	g infected	0.37
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	
No chance	1%	6	0.53%	2	
Very small chance	16.58%	100	15.83%	60	
Medium chance	35.49%	214	40.63%	154	
High chance	24.05%	145	21.11%	80	
Very high chance	11.11%	67	12.14%	46	
Absolutely sure	2.82%	17	3.69%	14	
This has already happened	8.96%	54	6.07%	23	
	Pare	Parent 2 Staff 2		P Values	
Your child will have to go into our not $(n1 = 39; n2 = 23)$	quarantine indep	pendent of	them being	g infected	0.35
Answer	<u>%</u>	Count	0/		
	<u> </u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
No chance	2.56%	1	<u>%</u> 0	Count 0	
No chance Very small chance					
	2.56%	1	0	0	
Very small chance	2.56% 15.38%	1	0 30.43%	0 7	
Very small chance Medium chance	2.56% 15.38% 46.15%	1 6 18	0 30.43% 34.78%	7 8	
Very small chance Medium chance High chance	2.56% 15.38% 46.15% 17.95%	1 6 18 7	0 30.43% 34.78% 26.09%	0 7 8 6	
Very small chance  Medium chance  High chance  Very high chance	2.56% 15.38% 46.15% 17.95% 0.00%	1 6 18 7 0	0 30.43% 34.78% 26.09% 4.35%	0 7 8 6 1	
Very small chance  Medium chance  High chance  Very high chance  Absolutely sure	2.56% 15.38% 46.15% 17.95% 0.00% 7.69%	1 6 18 7 0 3	0 30.43% 34.78% 26.09% 4.35% 0.00%	0 7 8 6 1 0 1	P Values
Very small chance  Medium chance  High chance  Very high chance  Absolutely sure	2.56% 15.38% 46.15% 17.95% 0.00% 7.69% 10.26%  Pare	1 6 18 7 0 3 4 nt 3	0 30.43% 34.78% 26.09% 4.35% 0.00% 4.35% Staf	0 7 8 6 1 0 1 1 f 3	
Very small chance Medium chance High chance Very high chance Absolutely sure This has already happened  You will have to go into quaranti	2.56% 15.38% 46.15% 17.95% 0.00% 7.69% 10.26%  Pare	1 6 18 7 0 3 4 nt 3	0 30.43% 34.78% 26.09% 4.35% 0.00% 4.35% Staf	0 7 8 6 1 0 1 1 f 3	
Very small chance  Medium chance  High chance  Very high chance  Absolutely sure  This has already happened  You will have to go into quaranti = 120; n2 = 32)	2.56% 15.38% 46.15% 17.95% 0.00% 7.69% 10.26% Pare	1 6 18 7 0 3 4 nt 3 of you bei	0 30.43% 34.78% 26.09% 4.35% 0.00% 4.35% Staf	0 7 8 6 1 0 1 1 f 3 or not (n1	

Medium chance	31.67%	38	25%	8	
High chance	13.33%	16	18.75%	6	
Very high chance	0.83%	1	0.00%	0	
Absolutely sure	3.33%	4	9.38%	3	
This has already happened	18.33%	22	3.13%	1	
	Pare	nt 1	Staf	f 1	P Values
Your child will get infected and they will infect someone else (n1 = 607; n2 = 880)					
Answer	<u>%</u>	Count	<u>%</u>	Count	
No chance	0.99%	6	1.32%	5	
Very small chance	42.17%	256	41.58%	158	
Medium chance	46.46%	282	45.53%	173	
High chance	6.75%	41	7.11%	27	
Very high chance	2.64%	16	3.16%	12	
Absolutely sure	0.49%	3	0.53%	2	
This has already happened	0.49%	3	0.79%	3	
	Pare	nt 2	Staf	f 2	P Values
Your child will get infected and the	y will infect s	omeone el	se (n1 = 39;	n2 = 23)	0.67
			٥,		
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count	
Answer No chance	<u>%</u> 2.56%	Count 1	<u>%</u> 4.35%	Count 1	
No chance	2.56%	1	4.35%	1	
No chance Very small chance	2.56% 48.72%	1 19	4.35% 43.48%	1 10	
No chance Very small chance Medium chance	2.56% 48.72% 38.46%	1 19 15	4.35% 43.48% 43.48%	1 10 10	
No chance Very small chance Medium chance High chance	2.56% 48.72% 38.46% 10.26%	1 19 15 4	4.35% 43.48% 43.48% 4.35%	1 10 10 10	

	Pare	nt 3	Staff 3		P Values
You will get infected and you will infect someone else (n1 = 121; n2 = 32)					
Answer	<u>%</u>	Count	<u>%</u>	Count	
No chance	8.26%	10	3.13%	1	
Very small chance	56.2%	68	62.5%	20	
Medium chance	26.45%	32	18.75%	6	
High chance	3.31%	4	12.5%	4	
Very high chance	0.00%	0	0.00%	0	
Absolutely sure	0.83%	1	0.00%	0	
This has already happened	4.96%	6	3.13%	1	

**Table 3**. Kindergarten to Grade 12 Parent and Staff Individual COVID-19 Disease Preventative Behavior

	Parei	nt 1	Pare	P Values		
Wearing a face mask (n1 = 604; 39)						
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>		
Not effective at all	1.16%	7	7.69%	3		
Hardly effective	3.15%	19	2.56%	1		
Somewhat effective	9.44%	57	10.26%	4		
Effective	28.31%	171	30.77%	12		
Very effective	57.95%	350	48.72%	19		

	Staff 1		Sta	ff 2	Staf	P Values		
Wearing a face mask (n1 = 378; n2 = 23; n3 = 32)								
Answer	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count		
Not effective at all	0.00%	0	0.00%	0	0.00%	0		
Hardly effective	1.32%	5	4.35%	1	3.13%	1		

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Somewhat effective	8.99%	34	0.00%	0	6.25%	2	
Effective	28.84%	109	39.13%	9	37.50%	12	
Very effective	60.85%	230	56.52%	13	53.13%	17	

		F	arent	1			Paren	t 2		P Values
Praying/performing r	eligious c	eremon	ies (n1	= 5	599; n	2 =	39)			0.77
Answer		<u>%</u>		Co	<u>unt</u>		<u>%</u>	<u>Count</u>		
Not effective at all		70.12	2%	4.	20	6	9.23%	27		
Hardly effective		13.19	%	7	'9	1	7.95%	7		
Somewhat effective		8.35	%	5	50	1	0.26%	4		
Effective		5.51	1%		3		2.56%	1		
Very effective		2.84	2.84%		7	Ú	0.00%	0		
	Staf	f 1 Staff 2				Staff 3			P Values	
Praying/performing r	eligious c	eremon	ies (n1	l = 3	375; n	2 =	23; n3 =	32)		0.37
Answer	<u>%</u>	Count	<u>%</u>	<u>)</u>	Cou	<u>nt</u>	<u>%</u>	Count		
Not effective at all	73.07%	274	69.5	7%	16	)	65.63%	21		
Hardly effective	14.67%	55	8.70	)%	2		15.63%	5		
Somewhat effective	7.20%	27	17.3	9%	4		9.38%	3		
Effective	2.93%	11	4.35	5%	1		9.38%	3		
Very effective	2.13%	8	0.00	)%	0		0.00%	0		

	Paren	t 1	Pare	ent 2	P Values				
Washing their hands with soap or using hand sanitizer frequently (n1 = $602$ ; n2 = $39$ )									
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count					
Not effective at all	0.17%	1	2.56%	1					
Hardly effective	1.16%	7	2.56%	1					
Somewhat effective	9.97%	60	12.82%	5					
Effective	27.57%	166	20.51%	8					
Very effective	61.13%	368	61.54%	24					

	Staff	<sup>:</sup> 1	Staff 2		Staff 3		P Values		
Washing their hands with soap or using hand sanitizer frequently (n1 = $378$ ; n2 = $23$ ; n3 = $32$ )									
Answer	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count			
Not effective at all	0.53%	2	0.00%	0	0.00%	0			
Hardly effective	0.79%	3	0.00%	0	3.13%	1			
Somewhat effective	9.52%	36	8.70%	2	15.63%	5			
Effective	30.69%	116	47.83%	11	31.25%	10			
Very effective	58.47%	221	43.48%	10	50.00%	16			

	Pare	nt 1	Pare	ent 2	P Values				
Seeing a health care provider if they feel sick (n1 = 600; n2 = 39)									
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>					
Not effective at all	4.5%	27	0.00%	0					
Hardly effective	7.17%	43	12.82%	5					
Somewhat effective	20.83%	125	20.51%	8					
Effective	33.33%	200	28.21%	11					
Very effective	34.17%	205	38.46%	15					

	Staff 1		Staff 2		Staff 3		P Values		
Seeing a health care provider if you feel sick (n1 = 378; n2 = 22; n3 = 31)									
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count			
Not effective at all	0.53%	2	0.00%	0	0.00%	0			
Hardly effective	0.79%	3	0.00%	0	3.13%	1			
Somewhat effective	9.52%	36	8.70%	2	15.63%	5			
Effective	30.69%	116	47.83%	11	31.25%	10			
Very effective	58.47%	221	43.48%	10	50.00%	16			

	Pare	ent 1	Pare	ent 2	P Values				
Seeing a health care provider if they feel healthy but you worry that they were exposed ( $n1 = 601$ ; $n2 = 39$ )									
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>					
Not effective at all	16.31%	98	15.38%	6					
Hardly effective	22.13%	133	23.08%	9					
Somewhat effective	23.46%	141	30.77%	12					
Effective	21.3%	128	23.08%	9					
Very effective	16.81%	101	7.69%	3					

	Staf	ff 1	Staff	2	Staff 3		P Values
Seeing a health care exposed (n1 = 378;	0.68						
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count	<u>%</u>	Count	
Not effective at all	11.64%	44	0.00%	0	15.63%	5	а
Hardly effective	18.52%	70	26.09%	6	12.50%	4	
Somewhat effective	29.10%	110	30.43%	7	31.25%	10	
Effective	25.40%	96	26.09%	6	31.25%	10	
Very effective	15.34%	58	17.39%	4	9.38%	3	

	Pare	nt 1	Pa	rent 2	P Values				
Avoiding public spaces, gatherings, and crowds (n1 = 603; n2 = 39)									
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	Count					
Not effective at all	1.99%	12	2.56%	1					
Hardly effective	3.32%	20	10.26%	4					
Somewhat effective	11.61%	70	17.95%	7					
Effective	22.55%	136	23.08%	9					
Very effective	60.53%	365	46.15%	18					

	Staf	ff 1	Staf	f 2	Staff 3		P Values		
Avoiding public spaces, gatherings, and crowds (n1 = 378; n2 = 23; n3 = 32)									
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>			
Not effective at all	0.26%	1	0.00%	0	0.00%	0			
Hardly effective	0.79%	3	0.00%	0	0.00%	0			
Somewhat effective	5.82%	22	4.35%	1	12.50%	4			
Effective	17.46%	66	34.78%	8	43.75%	14			
Very effective	75.66%	286	60.87%	14	43.75%	14			

			Parent 1	Parei	nt 2	P Values		
Avoiding contact with people who could be high-risk (n1 = 601; n2 = 38)								
Answer	<u>%</u>		Count	<u>%</u>	<u>Count</u>			
Not effective at all	1%	, >	6	0.00%	0			
Hardly effective	2.16	%	13	5.26%	2			
Somewhat effective	7.15	5%	43	13.16%	5			
Effective	23.1	3%	139	23.68%	9			
Very effective	66.5	6%	400	57.89%	22			

	Sta	Staff 1		Staff 2		Staff 3	
Avoiding contact with people who could be high-risk (n1 = 378; n2 = 23; n3 = 32)							
Answer	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	0.26%	1	0.00%	0	0.00%	0	
Hardly effective	1.59%	6	0.00%	0	0.00%	0	
Somewhat effective	5.03%	19	13.04%	3	9.38%	3	
Effective	22.49%	85	17.39%	4	25.00%	8	
Very effective	70.63%	267	69.57%	16	65.63%	21	

				Parei	nt 1	Pa	arent 2		P Values
Avoiding hospitals a	and clinics (	(n1 = 59	99;	n2 = 39	)				0.047
Answer				<u>%</u>	Count	<u>%</u>		Count	
Not effective at all				5.18%	31	7.69%		3	
Hardly effective			•	14.19%	85	7.69%		3	
Somewhat effective			,	32.05%	192	33.33%	, >	13	
Effective		2	23.71%	142	41.03%	, >	16		
Very effective			2	24.87%	149	10.26%	, >	4	
	Staf	f 1		Staff 2		Staff 3		P Values	
Avoiding hospitals a	and clinics	(n1 = 3)	77;	n2 = 23; n3 = 32)				0.49	
Answer	<u>%</u>	Coun	<u>t</u>	<u>%</u>	Count	<u>%</u>	9	Count	
Not effective at all	2.39%	9		4.35%	1	3.13%		1	
Hardly effective	12.47%	47		21.74%	5	21.88%		7	
Somewhat effective	27.06%	102		39.13%	9	28.13%		9	
Effective	29.71%	112	112		5	25.00%		8	
Very effective	28.38%	107		13.04%	3	21.88%		7	

	Pare	nt 1	Pare	P Values			
Avoiding restaurants, gyms, and/or salons (n1 = 603; n2 = 39)							
Answer	<u>%</u>	<u>Count</u>	ount <u>%</u> Count				
Not effective at all	3.65%	22	5.13%	2			
Hardly effective	7.46%	45	12.82%	5			
Somewhat effective	23.55%	142	23.08%	9			
Effective	29.02%	175	33.33%	13			
Very effective	36.32%	219	25.64%	10			

	Staff 1		Sta	ff 2	Staff 3		P Values
Avoiding restaurants,	s, gyms, and/or salons (n1 = 378; n2 = 23; n3 = 32)						0.26
<u>Answer</u>	%         Count         %         Count         %         Count						
Not effective at all	0.79%	3	0.00%	0	0.00%	0	
Hardly effective	3.97%	15	4.35%	1	6.25%	2	
Somewhat effective	14.29%	54	17.39%	4	28.13%	9	
Effective	32.28%	122	21.74%	5	37.50%	12	
Very effective	48.68%	184	56.52%	13	28.13%	9	

	Pare	ent 1	Pare	Parent 2		
Avoiding public transport (n1 = 601; n2 = 39)						
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	2.5%	15	7.69%	3		
Hardly effective	5.32%	32	12.82%	5		
Somewhat effective	23.13%	139	15.38%	6		
Effective	27.62%	166	25.64%	10		
Very effective	41.43%	249	38.46%	15		

	Staff 1		Sta	aff 2	Staff 3		P Values
Avoiding public transport (n1 = 378; n2 = 23; n3 = 32)							0.0044
Answer	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	Count	
Not effective at all	0.00%	0	4.35%	1	0.00%	0	
Hardly effective	2.65%	10	0.00%	0	3.13%	1	
Somewhat effective	12.70%	48	26.09%	6	28.13%	9	
Effective	32.28%	122	39.13%	9	40.63%	13	
Very effective	52.38%	198	30.43%	7	28.13%	9	

	Pare	nt 1	Staff	<sup>-</sup> 1	P Values	
Wearing a face mask (n1 = 604	; n2 = 378)				0.086	
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count		
Not effective at all	2.5%	15	7.69%	3		
Hardly effective	5.32%	32	12.82%	5		
Somewhat effective	23.13%	139	15.38%	6		
Effective	27.62%	166	25.64%	10		
Very effective	41.43%	249	38.46%	15		
	Pare	P Values				
Wearing a face mask (n1 = 39; n2 = 23)						
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count		
Not effective at all	7.69%	3	0.00%	0		
Hardly effective	2.56%	1	4.35%	1		
Somewhat effective	10.26%	4	0.00%	0		
Effective	30.77%	12	39.13%	9		
Very effective	48.72%	19	56.52%	13		
	Pare	nt 1	Staff	<sup>-</sup> 1	P Values	
Praying/performing religious co	eremonies (n	1 = 599; n2 :	= 375)		0.31	
Answer	<u>%</u>	Count	<u>%</u>	Count		
Not effective at all	70.12%	420	73.07%	274		
Hardly effective	13.19%	79	14.67%	55		
Somewhat effective	8.35%	50	7.20%	27		
Effective	5.51%	33	2.93%	11		
Very effective	2.84%	17	2.13%	8		

	Pare	nt 2	Staff	F 2	P Values		
Praying/performing religious c	eremonies (n	1 = 39; n2 =	23)		0.64		
<u>Answer</u>	<u>%</u>	<u>Count</u> <u>%</u> <u>Count</u>					
Not effective at all	69.23%	27	69.57%	16			
Hardly effective	17.95%	7	8.70%	2			
Somewhat effective	10.26%	4	17.39%	4			
Effective	2.56%	1	4.35%	1			
Very effective	0	0	0.00%	0			
	Pare	nt 1	Staf	F 1	P Values		
Washing their hands with soap or using hand sanitizer frequently (n1 = $602$ ; n2 = $378$ )							
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count			
Not effective at all	0.17%	1	0.53%	2			
Hardly effective	1.16%	7	0.79%	3			
Somewhat effective	9.97%	60	9.52%	36			
Effective	27.57%	166	30.69%	116			
Very effective	61.13%	368	58.47%	221			
	Pare	nt 2	Staff	f 2	P Values		
Washing their hands with soap = 23)	or using han	d sanitizer fr	equently (n1	l = 39; n2	0.19		
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	Count			
Not effective at all	2.56%	1	0.00%	0			
Hardly effective	2.56%	1	0.00%	0			
Somewhat effective	12.82%	5	8.70%	2			
Effective	20.51%	8	47.83%	11			
Very effective	61.54%	24	43.48%	10			

	Pare	nt 1	Staff	<sup>:</sup> 1	P Values		
Seeing a health care provider i	f they feel sic	ck (n1 = 600;	n2 = 378)		0.097		
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u> Count				
Not effective at all	4.5%	27	1.59%	6			
Hardly effective	.7.17%	43	5.56%	21			
Somewhat effective	20.83%	125	22.49%	85			
Effective	33.33%	200	36.24%	137			
Very effective	34.17%	205	34.13%	129			
	Pare	P Values					
Seeing a health care provider if they feel sick (n1 = 39; n2 = 22)							
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	Count			
Not effective at all	0	0	0.00%	0			
Hardly effective	12.82%	5	0.00%	0			
Somewhat effective	20.51%	8	22.73%	5			
Effective	28.21%	11	40.91%	9			
Very effective	38.46%	15	36.36%	8			
	Pare	nt 1	Staff	1	P Values		
Seeing a health care provider in exposed (n1 = 601; n2 = 378)	f they feel hea	althy but you	ı worry that t	they were	0.043		
Answer	<u>%</u>	Count	<u>%</u>	Count			
Not effective at all	16.31%	98	11.64%	44			
Hardly effective	.22.13%	133	18.52%	70			
Somewhat effective	23.46%	141	29.10%	110			
Effective	21.3%	128	25.40%	96			
Very effective	16.81%	101	15.34%	58			

	Pare	nt 2	Staff	2	P Values			
Seeing a health care provider in exposed (n1 = 39; n2 = 23)	f they feel he	althy but you	u worry that	they were	0.30			
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count				
Not effective at all	15.38%	6	0.00%	0				
Hardly effective	23.08%	9	26.09%	6				
Somewhat effective	30.77%	12	30.43%	7				
Effective	23.08%	9	26.09%	6				
Very effective	7.69%	3	17.39%	4				
	Pare	nt 1	Staff	<sup>:</sup> 1	P Values			
Avoiding public spaces, gatherings, and crowds (n1 = 603; n2 = 378)								
Answer	<u>%</u>	Count	<u>%</u>	Count				
Not effective at all	1.99%	12	0.26%	1				
Hardly effective	3.32%	20	0.79%	3				
Somewhat effective	11.61%	70	5.82%	22				
Effective	22.55%	136	17.46%	66				
Very effective	60.53%	365	75.66%	286				
	Pare	nt 2	Staff	2	P Values			
Avoiding public spaces, gather	rings, and cro	wds (n1 = 3	9; n2 = 23)		0.18			
Answer	<u>%</u>	Count	<u>%</u>	Count				
Not effective at all	2.56%	1	0.00%	0				
Hardly effective	10.26%	4	0.00%	0				
Somewhat effective	17.95%	7	4.35%	1				
Effective	23.08%	9	34.78%	8				
Very effective	46.15%	18	60.87%	14				

	Pare	nt 1	Staff	f 1	P Values			
Avoiding contact with people	who could be	high-risk (n	1 = 601; n2	= 378)	0.39			
Answer	<u>%</u>	Count	<u>%</u>	Count				
Not effective at all	1%	6	0.26%	1				
Hardly effective	2.16%	13	1.59%	6				
Somewhat effective	7.15%	43	5.03%	19				
Effective	23.13%	139	22.49%	85				
Very effective	66.56%	400	70.63%	267				
	Pare	Parent 2 Staff 2						
Avoiding contact with people	who could be	high-risk (n	1 = 38; n2 =	23)	0.74			
Answer	<u>%</u>	Count	<u>%</u>	Count				
Not effective at all	0	0	0.00%	0				
Hardly effective	5.26%	2	0.00%	0				
Somewhat effective	13.16%	5	13.04%	3				
Effective	23.68%	9	17.39%	4				
Very effective	57.89%	22	69.57%	16				
	Pare	nt 1	Staff	f 1	P Values			
Avoiding hospitals and clinics	(n1 = 599; n2	= 377)			0.024			
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	Count				
Not effective at all	5.18%	31	2.39%	9				
Hardly effective	14.19%	85	12.47%	47				
Somewhat effective	32.05%	192	27.06%	102				
Effective	23.71%	142	29.71%	112				
Very effective	24.87%	149	28.38%	107				

	Pare	nt 2	Staff	2	P Values
Avoiding hospitals and clinics	(n1 = 39; n2 =	= 23)			0.37
Answer	<u>%</u>	Count	<u>%</u>	Count	
Not effective at all	7.69%	3	4.35%	1	
Hardly effective	7.69	3	21.74%	5	
Somewhat effective	33.33%	13	39.13%	9	
Effective	41.03%	16	21.74%	5	
Very effective	10.26%	4	13.04%	3	
	Pare	nt 1	Staff	1	P Values
Avoiding restaurants, gyms, ar	nd/or salons (i	n1 = 603; n2	= 378)		2.42E-06
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count	
Not effective at all	3.65%	22	0.79%	3	
Hardly effective	7.46%	45	3.97%	15	
Somewhat effective	23.55%	142	14.29%	54	
Effective	29.02%	175	32.28%	122	
Very effective	36.32%	219	48.68%	184	
	Pare	nt 2	Staff	2	P Values
Avoiding restaurants, gyms, ar	nd/or salons (ı	n1 = 39; n2 =	= 23)		0.18
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Not effective at all	5.13%	2	0.00%	0	
Hardly effective	12.82%	5	4.35%	1	
Somewhat effective	23.08%	9	17.39%	4	
Effective	33.33%	13	21.74%	5	
Very effective	25.64%	10	56.52%	13	
	Pare	nt 1	Staff	1	P Values
Avoiding public transport (n1 =	= 601; n2 = 3	78)			5.95E-08
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count	
Not effective at all	2.5%	15	0.00%	0	
Hardly effective	5.32%	32	2.65%	10	

A Proposal of Utilizing Six Types of Involvement Model to Guide Kindergarten to 12th Grade School Parental Communication and Support During a Pandemic

Somewhat effective	23.13%	139	12.70%	48			
Effective	27.62%	166	32.28%	122			
Very effective	41.43%	249	52.38%	198			
	Pare	Parent 2 Staff 2					
Avoiding public transport (n1 =	Avoiding public transport (n1 = 39; n2 = 23)						
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count			
Not effective at all	7.69%	3	4.35%	1			
Hardly effective	12.82%	5	0.00%	0			
Somewhat effective	15.38%	6	26.09%	6			
Effective	25.64%	10	39.13%	9			
Very effective	38.46%	15	30.43%	7			

Table 4. Kindergarten to Grade 12 Parent and Staff Perception on COVID-19 Societal Policy Parent 1 Parent 2 P Values Close schools and daycares (n1 = 600; n2 = 39) 0.33 % % Answer Count Count Not effective at all 13.67% 82 25.64% 10 Hardly effective 22% 132 23.08% 9 Somewhat effective 36.67% 220 33.33% 13 Effective 17.83% 12.82% 5 107 Very effective 9.83% 59 5.13% 2 Staff 1 Staff 2 P Values Close schools and daycares (n1 = 376; n2 = 23) 0.020 <u>%</u> Count <u>Count</u> <u>Answer</u> <u>%</u> Not effective at all 3.72% 14 17.39% 4 Hardly effective 14.63% 55 26.09% 6 Somewhat effective 152 5 40.43% 21.74% Effective 28.19% 21.74% 5 106 Very effective 13.03% 49 13.04% 3

	Parer	nt 1	Pare	nt 2	P Values	
Close gyms (n1 = 599;	n2 = 39)		•		0.024	
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	6.68%	40	15.38%	6		
Hardly effective	10.02%	60	7.69%	3		
Somewhat effective	22.7%	136	38.46%	15		
Effective	30.05%	180	23.08%	9		
Very effective	30.55%	183	15.38%	6		
	Staf	f 1	Staf	f 2	P Values	
Close gyms (n1 = 376; i	n2 = 23)		•		0.49	
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count		
Not effective at all	1.33%	5	4.35%	1		
Hardly effective	5.32%	20	8.7%	2		
Somewhat effective	18.35%	69	13.04%	3		
Effective	34.84%	131	34.78%	8		
Very effective	40.16%	151	39.13%	9		
	Parer	nt 1	Pare	P Values		
Close restaurants (n1 =	598; n2 = 39)		•		0.38	
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	7.53%	45	12.82%	5		
Hardly effective	14.55%	87	15.38%	6		
Somewhat effective	30.27%	181	38.46%	15		
Effective	25.25%	151	20.51%	8		
Very effective	22.41	134	12.82%	5		
	Staf	Staff 1 Staff 2				
Close restaurants (n1 = 376; n2 = 23)						
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>		
Not effective at all	1.6%	6	0.00%	0		
Hardly effective	7.45%	28	4.35%	1		
Somewhat effective	26.33%	99	26.09%	6		
Effective	31.91%	120	39.13%	9		

Very effective	32.71%	123	30.43%	7	
	Pare	nt 1	Parent 2		P Values
Close all shops except	for supermarket	s and pharma	ncies (n1 = 59	9; n2 = 39)	0.40
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	12.69%	76	20.51%	8	
Hardly effective	24.71%	148	20.51%	8	
Somewhat effective	28.21%	169	33.33%	13	
Effective	21.54%	129	20.51%	8	
Very effective	12.85%	77	5.13%	2	
	Staf	f 1	Staf	f 2	P Values
Close all shops except	for supermarket	s and pharma	ncies (n1 = 37	6; n2 = 23)	0.37
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	
Not effective at all	3.99%	15	4.35%	1	
Hardly effective	14.89%	56	17.39%	4	
Somewhat effective	31.38%	118	47.83%	11	
Effective	28.99%	109	21.74%	5	
Very effective	20.74%	78	8.7%	2	
	Pare	nt 1	Parent 2		P Values
Don't allow visitors in h n2 = 39)	ospitals, nursing	homes and e	elderly home:	s (n1 = 599;	0.26
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	2.5%	15	0.00%	0	
Hardly effective	5.01%	30	12.82%	5	
Somewhat effective	26.71%	160	28.21%	11	
Effective	34.06%	204	35.9%	14	
Very effective	31.72%	190	23.08%	9	
	Staff 1 Staff 2				P Values
Don't allow visitors in h $n2 = 23$ )	n hospitals, nursing homes and elderly homes (n1 = 375;				0.0026
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	
Not effective at all	0.53%	2	0.00%	0	
		1		1	

Hardly effective	3.73%	14	0.00%	0	
Somewhat effective	20.8%	78	60.87%	14	
Effective	43.2%	162	21.74%	5	
Very effective	31.73%	119	17.39%	4	
	Parei	nt 1	Pare	nt 2	P Values
Oblige people aged 70+ or with a medical condition to stay at home except to do basic shopping or because urgent medical attention is required (n1 = $600$ ; n2 = 39)					
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count	
Not effective at all	0.83%	5	2.56%	1	
Hardly effective	6.33%	38	5.13%	2	
Somewhat effective	22%	132	33.33%	13	
Effective	34.83%	209	30.77%	12	
Very effective	36%	216	28.21%	11	
	Staf	f 1	Staf	P Values	
Oblige people aged 70+ to do basic shopping or 374; n2 = 23)			=	-	0.36
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Not effective at all	1.07%	4	4.35%	1	
Hardly effective	4.28%	16	4.35%	1	
Somewhat effective	21.12%	79	30.43%	7	
Effective	42.25%	158	34.78%	8	
Very effective	31.28%	117	26.09%	6	
	Parei	nt 1	Pare	nt 2	P Values
Oblige everyone who c example, people who w stays at home except to is needed (n1 = 600, n2	ork in healthca do basic shop	are, public tr	ansport, the	food chain)	0.014
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Not effective at all	9%	54	15.79%	6	
Hardly effective	15.33%	92	10.53%	4	
		I			

Somewhat effective	25.83%	155	28.95%	11		
Effective	28.83%	173	23.68%	9		
Very effective	21%	126	21.05%	8		
	Staf	f 1	Staf	f 2	P Values	
Oblige everyone who does not work in a crucial professional group (for example, people who work in healthcare, public transport, the food chain) stays at home except to do basic shopping or because urgent medical care is needed ( $n1 = 376$ , $n2 = 23$ )						
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	2.93%	11	4.35%	1		
Hardly effective	6.91%	26	4.35%	1		
Somewhat effective	23.4%	88	47.83%	11		
Effective	36.97%	139	21.74%	5		
Very effective	29.79%	112	21.74%	5		
	Parent 1 Parent 2					
Mandatory mask wearing	n1 = 598; n2	= 38)			0.20	
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	3.18%	19	7.89%	3		
Hardly effective	4.18%	25	5.26%	2		
Somewhat effective	7.19%	43	13.16%	5		
Effective	1.89%	113	18.42%	7		
Very effective	66.56%	398	55.26%	21		
	Staf	f 1	Staf	f 2	P Values	
Mandatory mask wearing	g (n1 = 376; n2	= 23)			0.55	
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	Count		
Not effective at all	0.27%	1	0.00%	0		
Hardly effective	2.39%	9	0.00%	0		
Somewhat effective	3.72%	14	4.35%	1		
Effective	16.49%	62	26.09%	6		
Very effective	77.13%	290	69.57%	16		

	Parer	nt 1	Staf	f 1	P Values
Close schools and dayc	ares (n1 = 600; ı	n2 = 376)			5.98E-09
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Not effective at all	13.67%	82	3.72%	14	
Hardly effective	22%	132	14.63%	55	
Somewhat effective	36.67%	220	40.43%	152	
Effective	17.83%	107	28.19%	106	
Very effective	9.83%	59	13.03	49	
	Parer	nt 2	Staf	f 2	P Values
Close schools and dayc	ares (n1 = 39; n2	2 = 23)			0.57
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Not effective at all	25.64%	10	17.39%	4	
Hardly effective	23.08%	9	26.09%	6	
Somewhat effective	33.33%	13	21.74%	5	
Effective	12.82%	5	21.74%	5	
Very effective	5.13%	2	13.04%	3	
	Parer	nt 1	Staf	P Values	
Close gyms (n1 = 599; ı	n2 = 376)				3.88E-06
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Not effective at all	6.68%	40	1.33%	5	
Hardly effective	10.02%	60	5.32%	20	
Somewhat effective	2.27%	136	18.35%	69	
Effective	30.05%	180	34.84%	131	
Very effective	30.55%	183	40.16%	151	
	Parer	P Values			
Close gyms (n1 = 39; n2 = 23)					
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	15.38%	6	4.35%	1	
Hardly effective	7.69%	3	8.7%	2	
Somewhat effective	38.46%	15	13.04%	3	
Effective	23.08%	9	34.78%	8	

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Very effective	15.38%	6	39.13%	9	
	Parei	nt 1	Staf	P Values	
Close restaurants (n1 = $\frac{1}{2}$	598; n2 = 376)				5.28E-08
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	7.53%	45	1.6%	6	
Hardly effective	14.55	87	7.45%	28	
Somewhat effective	30.27%	181	26.33%	99	
Effective	25.25%	151	31.91%	120	
Very effective	22.41%	134	32.71%	123	
	Parei	nt 2	Staf	f 2	P Values
Close restaurants (n1 = 3	39; n2 = 23)				0.060
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	12.82%	5	0.00	0	
Hardly effective	15.38%	6	4.35%	1	
Somewhat effective	38.46%	15	26.09%	6	
Effective	20.51%	8	39.13%	9	
Very effective	12.82%	5	30.43%	7	
	Parei	nt 1	Staff 1		P Values
Close all shops except fo	or supermarkets	and pharma	cies (n1 = 599	9; n2 = 376)	5.17E-09
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	12.69%	76	3.99%	15	
Hardly effective	24.71%	148	14.89%	56	
Somewhat effective	28.21%	169	31.38%	118	
Effective	21.54%	129	28.99%	109	
Very effective	12.85%	77	20.74%	78	
	Parent 2 Staff 2				P Values
Close all shops except fo	for supermarkets and pharmacies (n1 = 39; n2 = 23)				0.43
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>	
Not effective at all	20.51%	8	4.35%	1	
Hardly effective	20.51%	8	17.39%	4	
Somewhat effective	33.33%	13	47.83%	11	

Effective	20.51%	8	21.74%	5			
Very effective	5.13%	2	8.7%	2			
	Parei	nt 1	Staf	f 1	P Values		
Don't allow visitors in hospitals, nursing homes and elderly homes (n1 = 599; $n = 2375$ )							
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>			
Not effective at all	2.5%	15	0.53%	2			
Hardly effective	5.01%	30	3.73%	14			
Somewhat effective	26.71%	160	20.8%	78			
Effective	34.06%	204	43.2%	162			
Very effective	31.72%	190	31.73%	119			
	Parei	nt 2	Staf	f 2	P Values		
Don't allow visitors in hospitals, nursing homes and elderly homes (n1 = 39; n2 = 23)							
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>			
Not effective at all	0.00%	0	0.00%	0			
Hardly effective	12.82%	5	0.00%	0			
Somewhat effective	28.21%	11	60.87%	14			
Effective	35.9%	14	21.74%	5			
Very effective	23.08%	9	17.39%	4			
	Parei	nt 1	Staf	f 1	P Values		
Oblige people aged 70+ or with a medical condition to stay at home except to do basic shopping or because urgent medical attention is required (n1 = 600; n2 = 374)							
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>			
Not effective at all	0.83%	5	1.07%	4			
Hardly effective	6.33%	38	4.28%	16			
Somewhat effective	22%	132	21.12%	79			
Effective	34.83%	209	42.25%	158			
Very effective	36%	216	31.28%	117			
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	Parer	nt 2	Staf	P Values		
Oblige people aged 70+ to do basic shopping or 39; n2 = 23)	•	0.9902				
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	2.56%	1	4.35%	1		
Hardly effective	5.13%	2	4.35%	1		
Somewhat effective	33.33%	13	30.43%	7		
Effective	30.77%	12	34.78%	8		
Very effective	28.21%	11	26.09%	6		
	Parer	nt 1	Staf	f 1	P Values	
Oblige everyone who does not work in a crucial professional group (for example, people who work in healthcare, public transport, the food chain) stays at home except to do basic shopping or because urgent medical care is needed (n1 = 600; n2 = 376)						
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	9%	54	2.93%	11		
Hardly effective	15.33%	92	6.91%	26		
Somewhat effective	25.83%	155	23.4%	88		
Effective	28.83%	173	36.97%	139		
Very effective	21%	126	29.79%	112		
	Parer	nt 2	Staf	f 2	P Values	
Oblige everyone who does not work in a crucial professional group (for example, people who work in healthcare, public transport, the food chain) stays at home except to do basic shopping or because urgent medical care is needed (n1 = 38; n2 = 23)						
Answer	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Not effective at all	15.79%	6	4.35%	1		
Hardly effective	10.53	4	4.35%	1		
Somewhat effective	28.95%	11	47.83%	11		
Effective	23.68%	9	21.74%	5		
Very effective	21.05%	8	21.74%	5		

11 0							
	Parei	nt 1	Staf	f 1	P Values		
Mandatory mask wearing (n1 = 596; n2 = 376)							
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	<u>Count</u>			
Not effective at all	3.18%	19	0.27%	1			
Hardly effective	4.18%	25	2.39%	9			
Somewhat effective	7.19%	43	3.72%	14			
Effective	18.9%	113	16.49%	62			
Very effective	66.56%	398	77.13%	290			
	Parei	nt 2	Staf	f 2	P Values		
Mandatory mask wearing	g (n1 = 38; n2 =	= 23)			0.39		
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count			
Not effective at all	7.89%	3	0.00%	0			
Hardly effective	5.26%	2	0.00%	0			
Somewhat effective	13.16%	5	4.35%	1			
Effective	18.42%	7	26.09%	6			
Very effective	55.26%	21	69.57%	16			

Table 5. K-12 Parent and Staff Adherence to COVID-19 Policy									
	Paren	nt 3	Staff	f 3	P Values				
I have practiced recommend hand washing practice for at least 20 seconds (n1 = 119; n2 = 31)									
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count					
Never	0.84%	1	0.00%	0					
rarely	0.00%	0	3.23%	1					
Sometimes	13.45%	13.45% 16 6.45% 2							
Often	45.38%	54	45.16%	14					

Always	40.34%	48	45.16%	14		
	Paren	nt 3	Staff	P Values		
I have practiced avoiding touching eyes, nose, and mouth with unwashed hands $(n1 = 120; n2 = 31)$						
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Never	0.00%	0	0.00%	0		
rarely	2.5%	3	6.45%	2		
Sometimes	24.17%	29	12.9%	4		
Often	42.5%	51	51.61%	16		
Always	30.83%	37	29.03%	9		
	Parer	nt 3	Staff	f 3	P Values	
I have practice use of available for washing			en soap and wa	ater was not	0.61	
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count		
Never	1.68%	2	0.00%	0		
rarely	3.36%	4	0.00%	0		
Sometimes	9.24%	11	12.9%	4		
Often	33.61%	40	45.16%	14		
Always	52.1%	62	41.94%	13		
	Paren	nt 3	Stafl	f 3	P Values	
I have been staying home/isolating when I was sick or when I had a cold (n1 = 120; n2 = 30)						
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>		
Never	4.17%	5	0.00%	0		
rarely	1.67%	2	0.00%	0		

			l	1					
Sometimes	10%	12	10%	3					
Often	22.5%	27	20%	6					
Always	61.67%	74	70%	21					
Parent 3 Staff 3									
I have been practicing physical distancing at least 6-ft away from others (n1 = $120$ ; n2 = $31$ )									
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count					
Never	0.00%	0	0.00%	0					
rarely	4.17%	5	0.00%	0					
Sometimes	14.17%	17	9.68%	3					
Often	45.83%	55	61.29%	19					
Always	35.83%	43	29.03%	9					
	Parent 3 Staff 3								
			I have been practicing covering my mouth and nose when I cough or sneeze (n1 = 120: n2 = 31)						
I have been practici = 120; n2 = 31)	ng covering my mo	uth and nose v	L vhen I cough o	r sneeze (n1	0.67				
•	ng covering my mo	uth and nose v <u>Count</u>	vhen I cough o	r sneeze (n1	0.67				
= 120; n2 = 31)	<u> </u>			T	0.67				
= 120; n2 = 31)  Answer  Never	%	<u>Count</u>	<u>%</u>	Count	0.67				
= 120; n2 = 31)  Answer  Never  rarely	<b>%</b> 0.00%	Count 0	<u>%</u> 0.00%	Count 0	0.67				
= 120; n2 = 31) <u>Answer</u>	% 0.00% 0.00%	Count 0 0.00%	% 0.00% 0.00%	<u>Count</u> 0	0.67				
= 120; n2 = 31)  Answer  Never  rarely  Sometimes	% 0.00% 0.00% 1.67%	Count 0 0.00% 2	% 0.00% 0.00% 3.23%	Count 0 0 1	0.67				
= 120; n2 = 31)  Answer  Never  rarely  Sometimes  Often	% 0.00% 0.00% 1.67% 10.83%	Count 0 0.00% 2 13 105	% 0.00% 0.00% 3.23% 12.9%	Count  0  0  1  4  26	O.67 P Values				
= 120; n2 = 31)  Answer  Never  rarely  Sometimes  Often	% 0.00% 0.00% 1.67% 10.83% 8.75%	Count  0 0.00% 2 13 105	% 0.00% 0.00% 3.23% 12.9% 83.87%	Count  0  1 4 26	0.67				
= 120; n2 = 31)  Answer  Never rarely Sometimes Often Always  I have been practici	% 0.00% 0.00% 1.67% 10.83% 8.75%	Count  0 0.00% 2 13 105	% 0.00% 0.00% 3.23% 12.9% 83.87%	Count  0  1 4 26	P Values				
= 120; n2 = 31)  Answer  Never rarely  Sometimes  Often  Always  I have been practici 31)  Answer	% 0.00% 0.00% 1.67% 10.83% 8.75% Paren	Count  0 0.00% 2 13 105 at 3	% 0.00% 0.00% 3.23% 12.9% 83.87% Staff	Count 0 0 1 4 26 f 3 = 120; n2 =	P Values				
= 120; n2 = 31)  Answer  Never rarely  Sometimes  Often  Always  I have been practici 31)	% 0.00% 0.00% 1.67% 10.83% 8.75% Paren ng disinfecting surf	Count  0 0.00% 2 13 105 t 3 faces that belo	% 0.00% 0.00% 3.23% 12.9% 83.87% Staff	Count  0  1 4 26  13 = 120; n2 =	P Values				
= 120; n2 = 31)  Answer  Never rarely Sometimes Often Always  I have been practici 31)  Answer  Never	% 0.00% 0.00% 1.67% 10.83% 8.75% Paren ng disinfecting surf	Count  0 0.00%  2 13 105  t 3  aces that belo  Count  5	% 0.00% 0.00% 3.23% 12.9% 83.87% Staff ng to me. (n1) % 0.00%	Count  0  1 4 26  13 = 120; n2 =  Count 0	P Values				

			<u>'</u>	<u> </u>			
Always	21.67%	26	35.48%	11			
	Parer	nt 3	Staff	Р			
	1 4161		o tan		Values		
I have been wearing a face mask when I go to crowding area (n1 = 120; n2 = 31)							
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count			
Never	0.00%	0	0.00%	0			
rarely	4.17%	5	0.00%	0			
Sometimes	4.17%	5	0.00%	0			
Often	14.17%	17	16.13%	5			
Always	77.5%	93	83.87%	26			
	Parer	nt 3	Staff	f 3	Р		
					Values		
I am using antibiotics	for preventive pu	rposes (n1 = 1	19; n2 = 30)		0.86		
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count			
Never	85.71%	102	90%	27			
rarely	6.72%	8	6.67%	2			
Sometimes	2.52%	3	0.00%	0			
Often	1.68%	2	3.33%	1			
Always	3.36%	4	0.00%	0			
	Parer	nt 3	Staff	f 3	Р		
					Values		
I am using Herbal sup	pplements for prev	rentive purpose	es (n1 = 119; n2	2 = 31)	0.67		
<u>Answer</u>	<u>%</u>	Count	<u>%</u>	Count			
Never	65.55%	78	80.65%	25			
rarely	12.61%	15	6.45%	2			
Sometimes	10.92%	13	9.68%	3			
Often	7.56%	9	3.23%	1			
Always	3.36%	4	0.00%	0			

	Paren		Staff		P Values
I am using homeopath	ic remedies for p	reventive purp	oses (n1 = 119)	; n2 = 30)	0.25
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Never	68.07%	81	83.33%	25	
rarely	14.29%	17	3.33%	1	
Sometimes	10.08%	12	10%	3	
Often	5.88%	7	0.00%	0	
Always	1.68%	2	3.33%	1	
	Paren	nt 3	Staff	3	P Values
I am disinfecting my r 31)	nobile phone witl	h alcohol-based	d sanitizer (n1	= 120; n2 =	0.78
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Count	
Never	2.75%	33	22.58%	7	
rarely	18.33%	22	16.13%	5	
Sometimes	26.67%	32	38.71%	12	
Often	18.33%	22	1.29%	4	
Always	9.17%	11	9.68%	3	
	Paren	nt 3	Staff	3	P Values
I am eating Garlic, Gir	nger, Lemon, Fetc	n1 = 120; n2	= 31)		0.64
<u>Answer</u>	<u>%</u>	<u>Count</u>	<u>%</u>	<u>Count</u>	
Never	33.33%	40	48.39%	15	
rarely	18.33%	22	16.13%	5	
Sometimes	28.33%	34	19.35%	6	
Often	16.67%	20	12.9%	4	
Always	3.33%	4	3.23%	1	

Different perceptions and attitudes towards disease control strategies can lead to disagreements, which could potentially exacerbate parental disengagement,

particularly in the absence of effective communication between schools and families, preventing the formation of alliance and cooperation during the crisis, and causing

more family-school conflicts. Therefore, the key to getting everyone on the same page and avoiding conflict is to understand different stakeholders' knowledge and perceptions and to address any discrepancy using an effective communication strategy.

ISSUE II- CERTAIN DISEASE CONTROL STRATEGIES PUT A HEAVY BURDEN ON PARENTS.

Since the beginning of the COVID-19 outbreak, many nations have kept their schools closed to control the virus. This has infected more than 1.6 billion students International globally (United **Nations** Children's Emergency Fund (UNICEF) data hub, 2022). In response, many schools transferred in-person teaching to online learning to ensure students were still getting their formal education by studying at home. However, this sudden transition has not been without its challenges, and parents have had to take on additional responsibilities to supervise their children's education (Doyle 2020).

Parental educational obligations are essential to help with online learning since young children will probably need help from caregivers to access and complete online learning materials (Lau et al., 2021). A majority of parents express worry and low self-efficacy in sufficiently supporting children through remote learning (Doyle 2020; Daniela et al., 2021). This is partly because children's assignments are often too difficult for children to finish independently and require more parental support than they could offer (Jones & Forster, 2021). Furthermore, parents may feel that they lack the expertise to help with certain subjects (Daniela et al., 2021).

Parents are not only struggling to cope with the pandemic's health risks such as food shortage, loss of income, economic downturn, and health threats, but they also have to dedicate time and energy to support their children's education. This added pressure has taken a toll on parents' mental health, with reporting many negative impact а (Gadermann et al., 2021). Research completed recently during the initial COVID-19 shutdown in the United States. indicates that parents may face higher levels of stress if they have a more challenging time promoting their children's academic success (Spinelli et al., 2020). Therefore, it is imperative to develop effective school-home communication strategy that addresses the challenges faced by parents and other stakeholders. The provision of resources is also critical to ensure that parents are equipped to support their children's learning.

ISSUE III: LACK OF RESOURCES AND GUIDANCE REGARDING ONLINE LEARNING EXACERBATES THE CHALLENGING SITUATION

One of the fundamental requirements for successful online learning is technological competence. Parents have to familiarize themselves with novel digital tools to help their children access class materials, which is especially challenging for those parents who don't usually use digital devices. Parents have not received adequate technical support from schools (Abuhammad, 2020). For example, they did not get guidance on how to use computers, what to do if the connectivity is poor, or how to access the learning portal. There has been a dearth of technical personnel to assist during class time or after class. Furthermore, some families lack the

financial means to purchase electronic devices such as computers, cameras, and microphones. Dependable technology could significantly enhance the online learning experience by reducing the need for parents to repeatedly address technical difficulties.

These challenges are especially pronounced for families who lack access to computers and stable internet connections, such as those from low socioeconomic backgrounds and/or those living in rural areas. Nearly 7% of European families lack internet access and 5% of families don't have places for children to do homework. In areas that encounter COVID-19 spikes like New York City, 10% of children experience either homeless situations or housing instability (Van Lanker and Parolin, 2020). Families with single parents, sick parents, or illiterate parents need schools' extra support in children's learning (Daniela et al., 2021). School administrators and staff should keep track of families' living conditions and adjust the learning materials to ensure accessibility for all students.

ISSUE IV: LACK OF CENTRAL COMMUNICATION GUIDELINES

SARS-CoV-2 variants evolved rapidly in their transmission, morbidity, and mortality rates. Policymakers and educators were faced with the challenge of updating policies and quidelines, and communicating these updates promptly (Sullivan et al. 2021). Federal and state government guidelines focus primarily on safety protocols. It is difficult for school boards to remain up-todate with developing and revised CDC guidelines (Sullivan et al. 2021). There is often a flood of inconsistent and ever-changing information that school members (staff, parents, and students) receive. After a

protocol has been developed, its implementation requires the participation and cooperation of all school members.

It is disappointing that, despite its critical and fundamental role, no guide instructs school districts on how to communicate and engage parents, staff, and community members during these uncertain times. Communication advice is vague and of no immediate benefit to the already overburdened schools. As a result, schools will have to develop their structure and content for communicating in addition to the tasks associated with the pandemic. In the absence of central guidance, self-directed communication is inefficient, incomplete, and error-prone. Consequently, inconsistent and incoherent messages can exacerbate mistrust, myths, and confusion, undermining the overall effectiveness of the school's efforts.

The success of any protocol or guideline implementation requires the participation and cooperation of all school members, especially during a crisis. Therefore, school members' knowledge, understanding, trust, attitudes, and concerns are crucial to the success of these efforts. To this end, a structured and comprehensive model for communication and engagement is essential during a time of crisis. The current mission and challenges faced by schools further emphasize the need for such a model to be developed and implemented urgently for schools and school districts to utilize.

#### Discussion

In order to solve these challenges, we proposed schools and school districts use Epstein's Six Types of Involvement Framework to guide communication. Epstein's Six Types of Involvement Framework is one of the most influential models of communication and engagement in school, family, and community settings (Zaçellari & Miço, 2020). Developed in the early 1990s by Joyce Epstein and her collaborators, the Framework of Six Types of Involvement-sometimes known the "School-Family-Community Partnership Model" has undergone revisions over the years, though the fundamental elements have remained unchanged (Williams et al., 2022): communicating, volunteering, home-based learning, decision-making, and collaborating with the community.

Below, we have outlined how each component of the Six Types of Involvement Framework can be applied to improve communication and engagement during times of crisis (Table 1):

1) Parenting: School professionals should have a basic understanding of the diversity of students and families. They need to keep track of families' backgrounds, situations, and concerns and need to adequately assist caregivers during the transition period to athome learning. Teachers could collect information such as parents' confidence in supporting students' learning, needs for technology support, parenting skills training, and any financial/familial hardship they are experiencing. This information can guide professionals school provide accommodations corresponding empowerment to families, including but not limited to multiple ways of displaying class content and student engagement (live sessions, video recording, posts on websites, phone messages) and diverse parental workshops.

- 2) Communicating: Families and school teachers should find an effective way of communication to ensure prompt delivery of school policy updates and students' progress reports. For example, a school can utilize digital report cards regularly, multiple ways of notice (e.g. phone calls, newsletters, messages), or set up online conferences with parents to update school policies about the pandemic and convey teachers' feedback on students' learning. Clear communication is critical for all stakeholders to build accurate expectations for the unfamiliar remote learning and reach a consensus on school policies, which could help foster companionship among the school and families.
- 3) Volunteering: In terms of having families on the same page with schools, families are suggested to be involved in school projects or plans. As part of the project or plan, they would understand the background information well and know details on how to act. Throughout the process, a bridge is built between families and schools. Involved families could deliver the information and school goals to less involved families. Schools could have a new perspective on families' needs and improve families' engagement in projects. Additionally, medical future professionals can contribute by volunteering their time and expertise to support school initiatives, such as health and wellness programs or informational sessions for families.
- 4) Learning at home: Teachers could provide brochures or digital handouts for caregivers that specifically describe how to support students' learning. This guidance may include expectations for parents' involvement in remote learning (e.g. encouraging, guiding, monitoring), homework policies, and skills or



habits parents can help students foster. For example, during the pandemic crisis, teachers could help families build stress management skills or conduct social-emotional learning at home, to buffer the negative effect of the pandemic on students' mental health. Medical health professionals can offer expertise in areas such as stress reduction techniques, mental health support, and guidance on maintaining overall well-being during remote learning periods.

5) Volunteering: In terms of having families on the same page with schools, families are suggested to be involved in school projects or plans. As part of the project or plan, they would understand the background information well and know details on how to act. Throughout the process, a bridge is built between families and schools. Involved families could deliver the information and school goals to uninvolved families. Schools could have a new perspective on families' needs and improve the families' engagement

for further projects launch or development. Medical health professionals could also play a role in volunteering their time or expertise to support school initiatives, such as health and wellness programs or informational sessions for families on topics related to physical and mental health.

6) Collaborating with the community: The school's connection to the local community goes beyond resource procurement; it involves actively engaging with community voices. Schools play a crucial role in influencing the local economy, tourism, and industry. Therefore, fostering open forums to listen and collaborate with the community is essential for building sustainable relationships. Within this collaborative framework, medical professionals in the community emerge as invaluable allies. They offer insights into prevalent health needs, provide essential referrals, resources and and actively contribute to addressing health-related challenges through collaborative efforts.

Table 1. Utilize Epstein's Six Types of Involvement for Communication during a Crisis

	Parenting	Communicating	Volunteering	Learning at home	Decision Making	Collaborating
Assess	knowledge - Short survey to access school members' attitudes - Short survey to access school members' behaviors - Short survey to access school members' concerns	school stakeholders'	- Put a list of needed task and activities - Collect a list of activities and tasks	needs at home (resources.	- Host town hall meetings to brainstorm with different stakeholders	community

Medical Research Archives

A Proposal of Utilizing Six Types of Involvement Model to Guide Kindergarten to 12th Grade School Parental Communication and Support During a Pandemic

	Parenting	Communicating	Volunteering	Learning at home	Decision Making	Collaborating
Communication Resources and Channels	- Townhall - Feedback collect platform - Focused Group	different concepts - Articles/Papers	- Put parents in different cohort, assion different	manual highlight different home activities	voting system for different policies	- Engage in conversations with community leaders - Set up voting system - Establish email routines and material
Engagement	- Parental representative to participate in weekly planning Meetings		- Invite parents to different service projects		- Ask representatives of different stakeholders	- Invite community partners to provide resources - Invite community partners to engage in service projects

Overall, Epstein's Six Types of Involvement Framework provides a comprehensive approach to building and strengthening partnerships between schools, families, and communities. By addressing different types of involvement, the framework emphasizes the importance of communication, collaboration, and understanding, including the valuable contributions of medical professionals in supporting students and families during times of crisis.

#### STRENGTHS AND LIMITATIONS

There are multiple strengths to our study and approach. Firstly, the study utilized the mixed method approach and provided a comprehensive array of data related to communication perceptions and behaviors of parents and faculty about various facets of COVID-19 risk and concerns. Second, our study proposed a practical model to address the challenges and concerns.

There are several limitations. The current participation rate in this particular study is notably low compared to the desired level of engagement. limit This could generalizability of our findings. Additionally, the Multi-tiered System of Supports (MTSS) framework that we propose has not been specifically tested during the COVID-19 pandemic, although it has been implemented successfully in other school settings. The model has undergone existing not comprehensive testing or evaluation to assess its effectiveness and impact on the various stakeholders involved. To ensure successful implementation and sustainability, rigorous testing methods should be employed to evaluate the outcomes of this framework.

#### IMPLICATIONS FOR SCHOOLS

From the scoping review and the survey, we found that parents hold hesitant perceptions

of disease control strategies, with disagreements arising from beliefs about the severity of the illness and doubts regarding the effectiveness of school closures. Parents are more hesitant to trust disease prevention measures compared to school faculty, which can lead to conflicts and disengagement. School closures place a burden on parents who must support online learning and face challenges in providing sufficient assistance. Lack of resources and guidance for online learning exacerbates the situation, especially for families without access to technology and stable internet connections. Additionally, the absence of central communication guidelines hinders effective communication between schools and parents, resulting in inconsistent and confusing messages. Urgent attention is needed to address these issues through effective communication strategies, the provision of resources, and the development of comprehensive models for communication and engagement during crises.

The proposed utilization of six types of involvement models to guide Kindergarten to 12th grade school parental communication and support during a pandemic has significant implications for the physical, mental, and public health of school communities. The COVID-19 pandemic disrupted traditional schooling, and schools had to adopt new approaches to ensure that students continue to receive quality education. Since parental involvement is critical to the success of these new approaches, this proposal provides a framework for schools to engage parents in a meaningful way. By using the six types of involvement framework, schools can ensure that parents are informed, empowered, and involved in their children's education during the pandemic.

The use of Epstein's six types of involvement framework recognizes the role and

contribution of school, community, and parents for better attainment of learning outcomes. As such, community and parent volunteer participation in school activities strengthens school programs partnerships to improve school-community health and learning. In this view, parental involvement is essential to create policies, especially in monitoring student progress during the pandemic. Although the current crisis significantly reduced students' social interaction, the resilience of parental and guided intervention offers better behavioral and emotional engagement (Asanjarani et al., 2023). With Epstein's involvement framework, parents may gain awareness and self-confidence because of the increased comfort of conducting school activities at home. Volunteering efforts provide an arena of interaction with families in the community that enables sharing of practices toward the quality attainment of student learning. Moreover, communication and parenting are strategies to engage parents in utilizing information and following the pedagogical guidelines situated in the COVID-19 pandemic. Parents are highly influential in motivating learners to succeed academically (Wang & Sheikh-Khalil, 2014).

significance The of teacher-parent communication in raising children's academic achievement and highlighting effective cooperation and communication between parents and teachers to guide children's abilities will enhance learning outcomes (Spear et al., 2023). Teachers and facilitators understood the importance of parents' involvement in helping students with course building connections, tracking selection, progress, encouraging learning activities,

scheduling learning time, and offering study tips and topic support. Parents and teachers both had challenges, nevertheless, which were also noted (Borup et al., 2019). In particular with "hard-to-reach" families, schools made great efforts to retain communication and assistance, which enhanced family-school connections (Jones & Forster, 2021).

Parental involvement is a form of facilitation of remote instruction (learning at home) because they are involved in encouraging their children to engage in homework while parents gain an understanding of the school program. Future studies are needed to test the implementation of the model in real-world crises.

As researchers, we also stress the importance of medical professionals in understanding and addressing the challenges faced by parents during crises like the COVID-19 pandemic. By using engagement models, they can effectively communicate with and empower parents. Advocating for improved communication and resource allocation can enhance the well-being of school communities during crises.

## Conclusion

In conclusion, effective communication between schools and parents plays a crucial role in fostering understanding, trust, and collaborative efforts to enhance educational outcomes, particularly during times of crisis such as the COVID-19 pandemic. However, current school-home communication is often inadequate, as evidenced by surveys and data indicating challenges in discrepancies in perceptions and expectations. The COVID-19 pandemic has further highlighted the need for comprehensive communication guidance and models to bridge the communication gap and

promote effective support and collaboration in schools. By utilizing Epstein's Six Types of Framework, Involvement schools establish a comprehensive approach that considers the diverse needs of families and promotes collaboration. By focusing on communication, parenting, volunteering, learning at home, decision-making, and community collaboration, schools can foster understanding, trust, and cooperation during times of rapid change and massive needs. The proposed findings and solution particularly relevant for school administrators, policymakers, and educators seeking to improve communication during crises, and have the potential to facilitate more effective communication and parental engagement beyond health crises. By addressing these challenges and implementing the suggested framework, schools can strengthen their partnerships with parents, leading to better welfare for students.

Moreover, the main audience of this study is medical professionals, the including pediatricians, infectious disease doctors, and school nurses, who play a crucial role in communication strategies within educational settings. Their expertise in child health, disease transmission, and student health needs is essential for developing effective communication protocols that prioritize health and safety in schools. Recognizing and emphasizing their pivotal role in discussions about communication during crises fundamental for promoting academic success and safeguarding the well-being of students and communities.

## Conflict of Interest:

None declared.

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## Contributor

The study was conceived by DL, SHV, and MAB. The data was analyzed by DL, DC, YL, and ZZ. The manuscript was drafted by DL, YL, ZZ, MAB. The manuscript has been revised by all authors for important intellectual content.

# **Human Subject Approval Statement**

The study was approved by Yale School Public Health's Institutional Review Board (#2000028873).

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# Supplemental Information

# Appendix I. Codebook

Code Name	Abbreviation	Definition
Contextual Factors		
Role & Responsibilities	Rol	Refers to the different roles of the interviewees and/or the individuals mentioned in the interviews.
Setting	Set	Refers to school information
Operation		
Resources	Res_Fin	Refers to the resources and financial support school received for pandemic relief effort
Communication	Comm	To describe how COVID-19-related communications, including messages being communicated, communication channels, etc.
Safety Protocol	Safety_Pro	To describe how COVID-19 impacted routine school protocols and activities, including prevention protocols, etc.
COVID-19 Epidemiology	Ері	To describe the COVID-19 prevalence and transmission situation in school or local community
Mental Health	Men_Heal	To describe school members' mental health status during the pandemic
Attitudes	Att	To describe community members' perceptions and attitudes regarding the pandemic and school operation during the pandemic
Behavior	Beh	To describe school members' behaviors and adherence to the protocols
Overarching Codes		
Successes/Facilitators	Suc_Fac	Things that worked well, positive support.
Challenges/Barriers	Chal_Bar	Things that didn't work well
Recommendations	Rec	Recommenation for the project or for research team.
Great Quote	Grt_Qot	Anything that might be particularly useful, either to the project or for a future paper/presentation.

Appendix II. Parents and Staff Demographic Information

## Parents and Staff Demographics

#### Gender (Table IIA)

Among the 1,221 total participants in the survey, 782 were parents (64.0%), and 439 (36.0%) were staff members. There were 858 (70.3%) female participants, of whom 573 (46.9%) were parents and 285 (23.3%) were staff members. There are 352 male participants (28.8%), with 204 (16.7%) being parents and 148 (12.1%) identified as staff.

Female participants outnumbered males in both the parent and staff member categories in all three rounds. Among parents, female respondents were the largest group in Round 1 (454/620, 72.2%), and the same applied to staff members (244/383, 63.7%). No significant differences were observed among parents in all three rounds (P=0.29), and the same held true for staff members (P=0.17).

When comparing the numbers in each round, parents consistently outnumbered staff members. In Round 1, for instance, a total of 620 (50.8%) parents participated compared to only 383 (31.4%). Female participants who were parents (454/620, 73.2%) and staff members (244/383, 65.71%) exceeded male respondents.

#### Education (Table IIB)

Regarding educational attainment, most parents (559/867, 64.5%) and staff members (288/439, 65.6%) had pursued post-graduate studies. In Round 1, 62.3% of parents (387/621) attended graduate school, whereas the corresponding figures were 55.3%

(86/123) in Round 2 and 69.9% (86/123) in Round 3. No significant differences were detected among parents for all educational attainments in all three rounds (P=0.43).

Among staff member respondents who participated in Round 1 of the survey, 66.3% (254/383) pursued post-graduate studies. This trend persisted in Round 2 (14/23, 60.9%) and Round 3 (20/22, 60.6%). No significant differences were observed among staff members in terms of educational attainments across all three rounds (P=0.28). Likewise, Round 2 and 3, no significant differences between parents and staff were found (Round 1 P=0.03; Round 2 P=0.16; Round 3 P=0.31).

### Race (Table IIC)

In terms of race, most parents (617/817, 75.56%) and staff members (404/455, 88.8%) identified as White. This racial composition remained consistent across all three survey rounds for both categories. Additionally, other racial groups, such as Asian, Black/African American, and Hispanic/Latino/Latinx, also were represented. Statistical analysis did not reveal significant differences among parents in terms of racial composition in all three rounds (P=0.72). In Round 1, there are significantly more Asian participants amongst parents (66/646, 10.22%; P<0.005). No significant differences in racial composition were found between parents and staff members in Round 2 (P=0.14), or Round 3 (P=0.14).



# Tables. Parent and Faculty Survey Data

# Table IIA. Gender

	Par	ent 1	Pare	ent 2	Par	ent 3	P Values
		(n1 = 620; n2 = 39; n3 = 123)					0.28
Survey	Count	<u>%</u>	Count	<u>%</u>	Coun t	<u>%</u>	
Female	454	73.23%	34	87.18%	85	69.11 %	
Male	162	26.13%	5	12.82%	37	30.08 %	
Non-binary/third gender	0	0.00%	0	0.00%	0	0.00%	
Prefer to self-describe	1	0.16%	0	0.00%	0	0.00%	
Prefer not to say	3	0.48%	0	0.00%	1	0.81%	
	Fac	ulty 1	Faculty 2		Fac	ulty 3	P Values
		(n1 = 3)	83; n2 =	= 23; n3	= 33)		0.17
Survey	<u>Count</u>	<u>%</u>	<u>Count</u>	<u>%</u>	Coun <u>t</u>	<u>%</u>	
Female	454	73.23%	34	87.18%	85	69.11 %	
Male	162	162 26.13%		12.82%	37	30.08 %	
Non-binary/third gender	0	0.00%	0	0.00%	0	0.00%	
Prefer to self-describe	1	0.16%	0	0.00%	0	0.00%	
Prefer not to say	3	0.48%	0	0.00%	1	0.81%	

	Pare	ent 1	Fac	culty 1	P Values
	(n	1 = 620	; n2 =	383)	0.0014
<u>Survey</u>	Count	<u>%</u>	<u>Count</u>	<u>%</u>	
Female	454	73.23%	244	63.71%	
Male	162	26.13%	134	34.99%	
Non-binary/third gender	0	0.00%	3	0.78%	
Prefer to self-describe	1	0.16%	0	0.00%	

Prefer not to say	3	0.48%	2	0.52%			
	Parent 2		Faculty 2		rent 2 Faculty 2 P		P Values
	(	n1 = 39	; n2 =	23)	0.032		
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>			
Female	34	87.18%	14	60.87%			
Male	5	12.82%	8	34.78%			
Non-binary/third gender	0	0.00%	0	0.00%			
Prefer to self-describe	0	0.00%	0	0.00%			
Prefer not to say	0	0.00%	1	4.35%			
	Pare	ent 3	Fac	culty 3	P Values		
	(r	1 = 123	3; n2 =	33)	0.36		
Survey	Count	<u>%</u>	Count	<u>%</u>			
Female	85	69.11%	27	81.82%			
Male	37	30.08%	6	18.18%			
Non-binary/third gender	0	0.00%	0	0.00%			
Prefer to self-describe	0	0.00%	0	0.00%			
Prefer not to say	1	0.81%	0	0.00%			

Table IIB. Education									
	Pare	ent 1	Pare	Parent 2		Parent 3			
		(n1 = 62	1; n2 =	123; n3	= 123)	1	0.059		
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>			
Grades 1-8	0	0.00%	0	0.00%	0	0.00%			
Grades 9-11/Some high school	1	0.16%	2	2.63%	2	1.63%			
Grade 12/Completed high school or GED	6	0.97%	1	2.63%	1	0.81%			
Some college, Associates, Technical Degree	29	4.67%	6	2.63%	6	4.88%			
Bachelor's Degree	198	31.88%	28	36.84%	28	22.76%			
Any post-graduate studies	387	62.32%	86	55.26%	86	69.92%			

	Facı	ulty 1	Facu	ılty 2	Faculty 3		P Values	
		(n1 = 383; n2 = 23; n3 = 33)						
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>		
Grades 1-8	0	0.00%	0	0.00%	0	0.00%		
Grades 9-11/Some high school	0	0.00%	0	0.00%	0	0.00%		
Grade 12/Completed high school or GED	7	1.83%	2	8.70%	0	0.00%		
Some college, Associates, Technical Degree	28	7.31%	2	8.70%	5	15.15%		
Bachelor's Degree	94	24.54%	5	21.74%	8	24.24%		
Any post-graduate studies	254	66.32%	14	60.87%	20	60.61%		

	Par	ent 1	Facı	ılty 1	P Values
	(n	1 = 621;	n2 = 3	83)	0.029
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	
Grades 1-8	0	0.00%	0	0.00%	
Grades 9-11/Some high school	1	0.16%	0	0.00%	
Grade 12/Completed high school or GED	6	0.97%	7	1.83%	
Some college, Associates, Technical Degree	29	4.67%	28	7.31%	
Bachelor's Degree	198	31.88%	94	24.54%	
Any post-graduate studies	387	62.32%	254	66.32%	
	Par	ent 2	Facı	P Values	
	(r	1 = 123	; n2 = 2	23)	0.16
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	
Grades 1-8	0	0.00%	0	0.00%	
Grades 9-11/Some high school	2	2.63%	0	0.00%	
Grade 12/Completed high school or GED	1	2.63%	2	8.70%	

		1			
Some college, Associates, Technical Degree	6	2.63%	2	8.70%	
Bachelor's Degree	28	36.84%	5	21.74%	
Any post-graduate studies	86	55.26%	14	60.87%	
	Par	ent 3	Facı	ulty 3	P Values
	(r	1 = 123	; n2 = 3	33)	0.31
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	
Grades 1-8	0	0.00%	0	0.00%	
Grades 9-11/Some high school	2	1.63%	0	0.00%	
Grade 12/Completed high school or GED	1	0.81%	0	0.00%	
Some college, Associates, Technical Degree	6	4.88%	5	15.15%	
Bachelor's Degree	28	22.76%	8	24.24%	
Any post-graduate studies	86	69.92%	20	60.61%	

# Table IIC. Race

	Parent 1		Pare	ent 2	Parent 3		P Values				
		(n1 = 646; n2 = 43; n3 = 128)									
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>					
American Indian/Alaska Native	1	0.15%	0	0.00%	1	0.78%					
Asian	66	10.22%	6	13.95%	18	14.06%					
Black/African American	23	3.56%	2	4.65%	6	4.69%					
Hispanic/Latino/Latinx	25	3.87%	2	4.65%	9	7.03%					
Native Hawaiian or Other Pacific Islander	2	0.31%	0	0.00%	0	0.00%					
White	498	77.09%	31	72.09%	88	68.75%					
Other	16	2.48%	1	2.33%	1	0.78%					
Prefer not to say	15	2.32%	1	2.33%	5	3.91%					
	Faculty 1 Faculty 2 Faculty 3						P Values				
		(n1 = 39	99; n2	= 23; n3	(n1 = 399; n2 = 23; n3 = 33)						

<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	Count	<u>%</u>	
American Indian/Alaska Native	0	0.00%	0	0.00%	0	0.00%	
Asian	4	1.00%	1	4.35%	3	9.09%	
Black/African American	9	2.26%	0	0.00%	0	0.00%	
Hispanic/Latino/Latinx	14	3.51%	0	0.00%	1	3.03%	
Native Hawaiian or Other Pacific Islander	3	0.75%	1	4.35%	0	0.00%	
White	358	89.72%	19	82.61%	27	81.82%	
Other	6	1.50%	0	0.00%	1	3.03%	
Prefer not to say	5	1.25%	2	8.70%	1	3.03%	

	Pare	ent 1	Fac	ulty 1	P Values
	(n	1 = 646;	n2 = 3	99)	0.00000059
<u>Survey</u>	Count	<u>%</u>	<u>Count</u>	<u>%</u>	
American Indian/Alaska Native	1	0.15%	0	0.00%	
Asian	66	10.22%	4	1.00%	
Black/African American	23	3.56%	9	2.26%	
Hispanic/Latino/Latinx	25	3.87%	14	3.51%	
Native Hawaiian or Other Pacific Islander	2	0.31%	3	0.75%	
White	498	77.09%	358	89.72%	
Other	16	2.48%	6	1.50%	
Prefer not to say	15	2.32%	5	1.25%	
	Pare	ent 2	Fac	ulty 2	P Values
	(	n1 = 43;	n2 = 2	3)	0.34
<u>Survey</u>	Count	<u>%</u>	Count	<u>%</u>	
American Indian/Alaska Native	0	0.00%	0	0.00%	
Asian	6	13.95%	1	4.35%	
Black/African American	2	4.65%	0	0.00%	
Hispanic/Latino/Latinx	2	4.65%	0	0.00%	

Native Hawaiian or Other Pacific Islander	0	0.00%	1	4.35%	
White	31	72.09%	19	82.61%	
Other	1	2.33%	0	0.00%	
Prefer not to say	1	2.33%	2	8.70%	
	Pare	ent 3	Fac	ulty 3	P Values
	(r	1 = 128	; n2 = 3	33)	0.62
<u>Survey</u>	Count	<u>%</u>	<u>Count</u>	<u>%</u>	
American Indian/Alaska Native	1	0.78%	0	0.00%	
Asian	18	14.06%	3	9.09%	
Black/African American	6	4.69%	0	0.00%	
Hispanic/Latino/Latinx	9	7.03%	1	3.03%	
Native Hawaiian or Other Pacific Islander	0	0.00%	0	0.00%	
White	88	68.75%	27	81.82%	
Other	1	0.78%	1	3.03%	
Prefer not to say	5	3.91%	1	3.03%	_