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Trust in public authorities nine months after the COVID-19 outbreak: A cross-national study

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Abstract: This study aimed to examine trust in information provided by public authorities and financial measures put in place to address the impact of COVID-19. Using a cross-national approach among four Western countries; the United States of America, Norway, Australia, and the United Kingdom provides an analysis of responses related to trust and how they were associated with age group, gender, education level, employment status, size of place of residence, infection status, and social media use. When controlling for all included variables in logistic regression analyses, the likelihood of having trust in the public authorities' information was higher for women, those with higher levels of education, and those living in urban areas. Being infected with the coronavirus, and spending more time daily on social media was associated with lower likelihood reporting trust in information. Although policies implemented to respond to economic concerns varied cross-nationally, higher age, identifying as female, being employed, living in a city, and lower levels of social media usage were associated with higher likelihood of trusting in the financial measures put in place to counteract the economic effects of COVID-19.

Keywords: coronavirus, cross-national study, pandemic, public authorities, social media, trust

1. Introduction

Distrust in government and public authorities has historical precedence (Chanley et al., 2000). Trust in government has declined over the past 20 years (Dalton, 2005, Christensen & Lægreid, 2005). When considering responses to public health, natural disasters, and social crises, questioning of public authorities' information delivered and economic response to address the impact of crises' have been well documented (Hanfling et al., 2012; Smith & Silva, 2015; OECD, 2013). On January 5, 2020, the World Health Organization published a public statement to share that a cluster of illnesses had been identified in China. COVID-19 was declared a global pandemic that required immediate national responses to protect public health and safety on March 21, 2020. Western countries responded in various but largely similar ways, including limiting travel, requiring face coverings, and closing of businesses and schools. These actions resulted in many countries experiencing economic distress and

many people becoming underemployed or unemployed. Each country was able to determine their individual policies and procedures for health and safety and fiscal management (Elgin et al., 2020; Hale et al., 2020; OECD, 2013).

Despite the similar preventive measures implemented globally, compliance levels and sentiments toward the implementations differ between countries. Citizen responses to these actions varied from relief to frustration. While some individuals felt confident in the decisions of government entities to implement restrictions, others felt that their human rights and independent free will were being threatened by government mandates (Jakovljevic et al., 2020). During COVID-19, trust in government has increased in some countries (Oude Groeniger et al., 2021, Goldfinch et al., 2021, Pak et al., 2021), whereas trust has eroded in others (Deslatte, 2020). People's trust in the medical advice and information received from the government determines the public compliance with the recommendations (Newton, 2020; Jakovljevic et al., 2020; Wong & Jenson, 2020; Guillon & Kergall, 2020; OECD, 2013). Therefore, understanding the underlying social interactions on trust and its determinants is critical in coping with the COVID-19 pandemic.

At the initial onset of COVID-19 pandemic, Gozgor (2021) found that older adults and healthy individuals tended to trust and support the government initiatives while more individuals that are educated are less trusting and more likely not to follow recommendations.

While early studies of trust in governments during the initial phases of the COVID-19 implementation have supported an increase in trust, it is important to examine if this trust level maintains over time or if it diminishes. Trust in government officials is developed and maintained by delivering accurate information, having consistency in responses, transparency in challenges and decision making, and producing positive outcomes for citizens by providing resources to address identified needs (Jakovljevic et al., 2020). Relationships between the general civilian public and officials with a responsibility to deliver safety and security are critical during healthcare emergencies to increase positive attitudes and behaviors from citizens that support compliance of recommendations (Levi & Stoker, 2000). During the first wave of the global pandemic, some government responses were identified as effective when there was a reduction in positive COVID-19 cases, however, there were concerns about the ongoing impacts of resident's responses as the pandemic continued (Anastasiou & Duquenne, 2021).

Responses of citizens across the world continue to vary as information was shared that included discussions of development and implementation of responses (i.e. immunizations, distance protocols, emergency funding to families) through multiple modes of media. Communication from governmental entities, especially coverage from media sources has been linked to the trust of citizens. Negative media attention disrupts the public trust in government officials (Fisher et al., 2012, Reinhart, 2015). Social media users describe concerns about the role of propaganda in describing the COVID-19 virus and government responses for the physical and financial wellness of citizens (Geirdal et al., 2021). Examining trust in public authorities to deliver transparent and accurate information and to provide support for constituents can provide considerations for identifying potential challenges citizens may have with adhering to policy recommendations to reduce the spread of COVID-19 during a time of an international health crisis.

The aim of this cross-national study was to examine (i) trust among the general population in the government and public authorities' information and financial measures regarding the COVID-19 pandemic nine months after the outbreak, and (ii) examine trust in public authorities in relation to sociodemographic variables, whether one has experienced COVID-19 infection, and use of social media.

2. Methods

The study had a cross-sectional survey design. The link to the survey was distributed through social media in each of the involved countries for one month, between October 24 and November 29, 2020 using targeted ads from the university sponsored social media accounts and sharing of the posting by individuals. A landing site for the survey was established at the researchers' universities; OsloMet - Oslo Metropolitan University, Norway; University of Michigan, USA; Northumbria University, UK; and the University of Queensland, Australia. The initiator of the project was AØG from OsloMet. Due to ethical considerations and permissions in each of the countries, each country had their own project lead. The survey was simultaneously co-developed by the researchers in two languages; Norwegian and English and was based on a previous survey conducted by the research group in the early phase (April 2020) of the pandemic outbreak (Geirdal et al., 2021; Ruffolo et al., 2021). Language and cultural differences were considered during the survey development process.

2.1. Inclusion and exclusion

To be included in the study, participants had to be 18 years or older, understand Norwegian or English, live in Norway, USA, UK, or Australia, and have access to an electronic device and internet. There were no exclusion criteria.

2.2. Measures

2.2.1. Sociodemographic characteristics

Sociodemographic variables collected included age group (18-29 years, 30-39 years, 40-49 years, 50-59 years, 60-69 years, 70 years and above), gender identity (male, female, other, prefer not to respond), highest completed education level (high school or associated/technical degree or lower, bachelor's degree, master's/doctoral degree), place of residence (rural or farming area; town or suburb; or city), and employment status (having full-time, part-time, or no employment).

2.2.2. Social media use

The participants were asked to indicate the amount of time they had spent on social media on a typical day during the last month. In line with the work of Ellison and co-workers (Ellison, Steinfield, & Lampe, 2007), response options were less than 10 minutes, 10-30 minutes, 31-60 minutes, 1-2 hours, 2-3 hours, and more than three hours.

2.2.3. Infection

Infection was measured with the item: "Have you been infected by COVID-19?" Response options were 'yes' or 'no'.

2.2.4. Trust in public authorities

This study's two outcome variables were constructed from the following questions: "Do you have trust in the government and public authorities' information about the COVID-19 pandemic?" and "Do you have trust in the government and public authorities' financial measures during the COVID-19 pandemic? Both questions had the response options 'yes' and 'no'.

2.3. Statistical Analysis

Analyses were performed for the total sample and for each of the four countries. Categorical independent variables were cross-tabulated with the outcome measures, and differences in proportions were examined with Chi-Square tests. Logistic regression analysis was used to assess direct associations between each of the independent variables and the two outcomes, while concurrently controlling for covariation between all

included variables. All independent variables were entered in one step: age group, gender, education level, employment status, size of place of residence, infection status, and social media use. Odds ratio (OR) was used as effect size, and the 95 % confidence interval of the OR was reported. Statistical significance was set at $p < 0.05$. Missing values were handled by case-wise deletion.

2.4. Ethics

The data collected in this study were anonymous. The researchers adhered to all relevant regulations in their respective countries concerning ethics and data protection. The study was approved by OsloMet (20/03676) and the regional committees for medical and health research ethics (REK; ref. 132066) in Norway, reviewed by the University of Michigan Institutional Review Board for Health Sciences and Behavioral Sciences (IRB HSBS) and designated as exempt (HUM00180296) in USA, by Northumbria University Health Research Ethics (HSR1920-080) in UK, and (HSR1920-080 2020000956) in Australia.

3. Results

3.1. Participants

Participants included 3474 individuals from Norway ($n = 547$, 15.7 %), USA ($n = 2130$, 61.3 %), UK ($n = 640$, 18.4 %) and Australia ($n = 157$, 4.5 %). In the total sample, there was a spread across age groups, with a lower proportion of participants being 70 years or older. There were more women (73.3 % women versus 22.2 % men), with 48 (1.4 %) participants reporting “other” gender identity and 36 (1.0 %) preferred not to say. Seventy-one percent had a bachelor’s degree or higher levels of education. Fifteen percent reported living in a rural/farming area, 46% in town/suburb, and 37% in the city. Full-time or part-time employment was held among 66.3 %.

3.2. Trust in public authorities

The number and proportions of participants reporting that they had trust in information provided and the financial measures put in place to counter the economic effects of COVID-19 by public authorities in the total sample and for each of the four countries are provided in Table 1. When examining variations in trust between countries large variations emerged. There was a significant difference ($p < 0.001$) between countries related to trusting public authorities, with participants from Norway and Australia having the highest level of trust (91.8%; 80.9%) and participants from the UK and USA having lower levels of trust (37.3%; 40.8%). Significant variation ($p < 0.001$) in trust related to financial responses was also noted, participants from Norway and Australia reporting higher levels of trust (69.4%, 64.7%) while participants from the UK and USA reported lower levels of trust (33.2%, 21.1%).

Table 1 displays the outcomes from the descriptive analysis of trust in the authorities’ information and financial measures, respectively, cross-tabulated with age group, gender, education level, size of place of living, employment, infection status and social media use. Across age groups, no significant differences occurred for trust in the authorities’ information, while trust in financial measures more frequently occurred in the higher age groups. Women more often reported trust on both outcomes, compared to men, and those with higher levels of education more often reported trust on both outcomes, compared to their counterparts with lower levels of education. Similarly, on both outcome measures, participants living in cities more often reported trust than those living in towns and suburbs and those living in rural areas, while somewhat lower proportions of those who were employed reported trust, compared to those who did not have

employment. Among those who had been infected by the coronavirus, trust was reported less frequently than among those who had not been infected. Trust in the authorities' information and financial measures was also significantly different between categories of social media use, with those spending more time daily on social media less likely to report having trust in public authorities.

Between the countries, the results showed evidence of similarities as well as dissimilarities. For example, trust was more often occurring in the younger age groups of US Americans, the opposite pattern was shown among participants from the UK although there was a uniform pattern across countries of more distrust among those who had been infected, compared to those who had not. All unadjusted results are shown in Table 1. **Figure 1.** This is a figure. Schemes follow the same formatting.

Table 1. Number and proportions of participants with trust in the public authorities’ information about COVID-19 and in their financial measures to counter the economic effects of COVID-19 within subgroups

	Total sample		USA		UK		Norway		Australia	
	(N=3474)		(N=2130)		(N=640)		(N=547)		(N=157)	
<i>Character-istics</i>	Inform.	Financial	Inform.	Financial	Inform.	Financial	Inform.	Financial	Inform.	Financial
Age group	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
18-29 years	341 (53.9)	184 (29.1)	209 (51.5)	86 (21.2)	35 (28.7)	34 (27.9)	80 (93.0)	54 (63.5)	17 (89.5)	10 (52.6)
30-39 years	365 (51.7)	217 (30.8)	220 (46.1)	104 (21.8)	38 (35.2)	35 (32.4)	90 (89.1)	63 (63.0)	17 (85.0)	15 (75.0)
40-49 years	266 (47.4)	197 (35.1)	106 (36.4)	63 (21.6)	43 (33.6)	44 (34.4)	103 (84.4)	77 (63.1)	14 (70.0)	13 (65.0)
50-59 years	235 (53.3)	167 (38.0)	62 (31.5)	37 (18.9)	49 (43.8)	39 (34.8)	100 (98.0)	73 (72.3)	24 (80.0)	18 (60.0)

60-69 years	210 (47.4)	150 (33.9)	90 (31.9)	51 (18.1)	26 (49.1)	19 (35.8)	69 (92.0)	59 (78.7)	25 (75.8)	21 (63.6)
70 years +	151 (52.2)	120 (42.0)	67 (34.5)	49 (25.5)	14 (60.9)	11 (47.8)	60 (98.4)	51 (85.0)	10 (90.9)	9 (81.8)
<i>p</i>	0.13	0.001	< 0.001	0.47	< 0.01	0.52	< 0.01	< 0.01	0.57	0.57
Gender identity										
Male	312 (44.3)	216 (30.7)	137 (30.5)	73 (16.3)	45 (41.7)	34 (31.5)	112 (94.9)	95 (81.2)	18 (60.0)	14 (46.7)
Female	1242 (53.4)	814 (35.1)	606 (44.5)	313 (23.0)	157 (36.0)	146 (33.5)	389 (91.5)	282 (66.8)	90 (88.2)	73 (71.6)
<i>p</i>	< 0.001	< 0.05	< 0.001	< 0.01	0.28	0.69	0.22	< 0.01	< 0.001	< 0.05
Education level										
High school/te ch. de- gree or lower	368 (43.1)	250 (29.3)	144 (29.6)	77 (15.8)	74 (38.7)	71 (37.2)	121 (85.8)	81 (57.9)	29 (80.6)	21 (58.3)

Bache- lor's de- gree	568 (51.6)	357 (32.5)	286 (42.8)	139 (20.8)	68 (35.8)	58 (30.5)	176 (90.7)	131 (68.2)	38 (77.6)	29 (59.2)
Mas- ter's/doc- toral de- gree	645 (56.1)	436 (38.1)	334 (44.6)	179 (25.1)	63 (37.1)	54 (31.8)	205 (96.7)	165 (78.2)	43 (84.3)	38 (74.5)
<i>p</i>	< 0.001	< 0.001	< 0.001	0.001	0.84	0.35	0.001	< 0.001	0.69	0.18
Size of place										
Ru- ral/farm- ing	179 (38.4)	126 (27.1)	96 (30.8)	64 (20.6)	46 (41.4)	41 (36.9)	36 (85.7)	21 (50.0)	--	--
Town/su- burb	716 (49.2)	457 (31.5)	443 (42.5)	226 (21.7)	81 (41.1)	79 (40.1)	179 (90.9)	140 (71.4)	13 (72.2)	12 (66.7)
City	687 (58.2)	459 (39.1)	225 (43.5)	105 (20.4)	79 (32.9)	63 (26.3)	287 (93.5)	215 (70.7)	96 (82.8)	76 (65.5)

[illegible]

< 10 min	51 (66.2)	38 (50.7)	6 (25.0)	4 (16.7)	7 (50.0)	3 (21.4)	36 (100.0)	30 (88.2)	--	--
10-30 min	142 (52.2)	116 (42.8)	49 (33.8)	32 (22.1)	19 (40.4)	20 (42.6)	65 (94.2)	55 (80.9)	9 (81.8)	9 (81.8)
31-60 min	249 (50.7)	192 (39.1)	86 (32.3)	57 (21.4)	41 (45.6)	38 (42.2)	100 (92.6)	78 (72.2)	22 (81.5)	19 (70.4)
1-2 hours	475 (55.4)	322 (37.6)	224 (45.0)	129 (26.0)	46 (35.1)	40 (30.5)	174 (92.1)	131 (69.3)	31 (79.5)	22 (56.4)
2-3 hours	253 (44.7)	134 (23.7)	192 (44.9)	80 (18.7)	36 (33.6)	33 (30.8)	1 (50.0)	2 (100.0)	24 (82.8)	19 (65.5)
< 3 hours	361 (50.3)	208 (29.1)	180 (42.0)	80 (18.7)	39 (31.0)	34 (27.0)	126 (88.1)	81 (57.0)	16 (80.0)	13 (65.0)
<i>p</i>	< 0.001	< 0.001	0.001	0.07	0.24	0.11	0.05	0.001	0.99	0.52

Note. Statistical tests are Chi-Square test, and Fisher’s Exact test in cases where there were cells with expected count less than 5. *p*-values refer to differences within the total sample and within each of the subsamples. – suppressed due to small cell sizes

3.3. Associations with trust in the public authorities’ information about COVID-19

In the total sample, when controlling for all included variables, the likelihood of having trust in the public authorities’ information was higher for women (OR: 1.41, $p < 0.001$), those with higher levels of education (Master’s/doctoral degree; OR: 1.45, $p < 0.001$; Bachelor’s degree; OR: 1.25, $p < 0.05$), and those living in urban areas (city; OR: 1.96, $p < 0.001$, town/suburb; OR: 1.37, $p < 0.01$). Being infected with the coronavirus (OR: 0.46, $p < 0.001$), and spending more time daily on social media (OR: 0.91, $p < 0.01$) was associated with lower likelihood reporting trust in information.

Confirming the unadjusted results, differences between UK and USA were shown for the association with age: more people in the younger age groups in the USA had trust in the authorities’ information, while trust was more frequent in the older age groups in the UK. In Norway, having employment was associated with a more than doubled likelihood of reporting trust in the authorities’ information provided. In Australia, although within a very wide confidence interval, women had more than eight times the likelihood of men to trust the information given by the public authorities. Table 2 displays the results for the adjusted analyses.

Table 2. Adjusted associations with trust in the public authorities’ information about COVID-19 within sub-groups

Independent variables	Total sample	USA	UK	Norway	Australia
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Higher age	0.97 (0.92-1.03)	0.86 (0.79-0.91)***	1.17 (1.00-1.36)*	1.21 (0.95-1.54)	0.79 (0.52-1.20)
Female gender	1.41 (1.18-1.70)***	1.49 (1.16-1.90)**	0.79 (0.49-1.28)	0.75 (0.30-1.91)	8.60 (2.83-26.12)***
Bachelor’s degree education ¹	1.25 (1.03-1.52)*	1.48 (1.13-1.95)**	1.11 (0.68-1.79)	1.18 (0.54-2.60)	0.71 (0.19-2.59)
Master’s/doctoral degree education ¹	1.45 (1.20-1.77)***	1.86 (1.42-2.43)***	1.04 (0.65-1.66)	2.59 (0.96-6.96)	1.74 (0.43-7.00)
Having employment	1.02 (0.85-1.22)	0.94 (0.73-1.19)	0.68 (0.44-1.05)	2.33 (1.10-4.94)*	0.65 (0.18-2.30)
Town/suburb ²	1.37 (1.09-1.71)**	1.31 (0.98-1.76)	1.03 (0.61-1.72)	1.78 (0.62-5.08)	-
City ²	1.96 (1.55-2.48)***	1.28 (0.93-1.77)	0.70 (0.41-1.19)	2.18 (0.78-6.12)	-
Infected	0.46 (0.33-0.63)***	0.63 (0.42-0.96)*	0.80 (0.44-1.46)	0.15 (0.03-0.66)*	0.19 (0.01-2.88)

Social media use	0.91 (0.86-0.96)**	1.05 (0.97-1.14)	0.90 (0.78-1.04)	0.85 (0.66-1.09)	0.95 (0.62-1.44)
Cox Snell R ² (Nagelkerke R ²)	4.1 % (5.4 %)	5.3 % (7.2 %)	4.4 % (5.9 %)	5.2 % (12.6 %)	16.5 % (26.5 %)

¹Compared with ‘high school, technical degree or lower’. ²Compared with ‘rural or farming’. The distribution on this variable in the Australian subsample did not allow for estimating OR. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

3.4. Associations with trust in the public authorities’ financial measures to counteract effects of COVID-19

Table 3 displays the adjusted odds ratios for having trust in the authorities’ financial measures to counter the effects of the pandemic . In the whole sample, when controlling for all included variables, the likelihood of having trust in the public authorities’ financial measures was higher for those of higher age (OR: 1.10, $p < 0.01$), women (OR: 1.31, $p < 0.01$), those with employment (OR: 1.25, $p < 0.05$), and those living in cities (OR:1.68, $p < 0.001$). Using more time on social media (OR: .82, $p < 0.001$) was associated with lower likelihood of trusting financial measures put in place by public authorities.

The Norwegian subset showed significantly more trust among those of higher age and those employed, compared to their counterparts. In Norway, women were less inclined to trust the authorities’ financial measures, compared to men, while the opposite pattern was shown in the USA and Australia. In the UK, participants living in cities were less inclined to have trust in financial measures than those living in rural areas, while the opposite pattern was shown for the Norwegian subset.

Table 3. Adjusted associations with trust in the public authorities’ financial measures to counteract the economic effects of COVID-19 within subgroups

Independent variables	Total sample	USA	UK	Norway	Australia
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Higher age	1.10 (1.04-1.16)**	1.00 (0.92-1.09)	0.99 (0.85-1.15)	1.20 (1.04-1.39)*	1.00 (0.73-1.37)
Female gender	1.31 (1.08-1.59)**	1.44 (1.07-1.94)*	1.23 (0.74-2.04)	0.56 (0.33-0.95)*	3.15 (1.24-8.01)*
Bachelor’s degree education ¹	1.08 (0.88-1.34)	1.33 (0.96-1.84)	0.69 (0.42-1.12)	1.22 (0.74-2.00)	0.84 (0.30-2.38)
Master’s/doctoral degree education ¹	1.22 (0.99-1.49)	1.57 (1.14-2.16)**	0.77 (0.48-1.24)	1.71 (1.01-2.89)*	1.69 (0.58-4.96)

Having employment	1.25 (1.03-1.51)*	1.11 (0.83-1.48)	0.87 (0.55-1.37)	1.74 (1.08-2.81)*	0.84 (0.31-2.30)
Town/suburb ²	1.15 (0.90-1.47)	0.89 (0.64-1.24)	1.10 (0.66-1.84)	2.45 (1.20-5.00)*	-
City ²	1.68 (1.30-2.15)***	0.85 (0.58-1.23)	0.57 (0.33-0.97)*	2.34 (1.17-4.67)*	-
Infected	0.60 (0.42-0.85)	0.88 (0.54-1.43)	0.74 (0.39-1.38)	0.59 (0.15-2.31)	0.23 (0.02-3.41)
Social media use	0.82 (0.78-0.88)***	0.91 (0.83-1.00)	0.87 (0.76-1.01)	0.83 (0.72-0.96)*	0.98 (0.71-1.36)
Cox Snell R² (Nagelkerke R²)	3.9 % (5.4 %)	1.3 % (2.0 %)	4.1 % (5.7 %)	9.3 % (13.1 %)	9.4 % (13.1 %)

1Compared with 'high school, technical degree or lower'. 2Compared with 'rural or farming'. The distribution on this variable in the Australian subsample did not allow for estimating OR. *** p < 0.001, ** p < 0.01, * p < 0.05

4. Discussion

This study aimed to examine (i) trust among the general population in the government and public authorities' information and financial measures regarding the COVID-19 pandemic nine months after the out-break, and (ii) examine trust in public authorities in relation to sociodemographic variables, whether one has experienced COVID-19 infection, and use of social media. When examining the total sample, female gender, higher educational levels, living in urban areas, having employment, and lower social media usage were associated with trusting information provided by public authorities. The same associations were revealed for trusting the financial measures put into place by public authorities with the addition of higher age although the policies implemented to respond to economic concerns varied somewhat cross-nationally.

Trust in public authorities has been known to increase with age (Christensen & Lægreid, 2005; PEW RESEARCH CENTER, 2018). Consistent with previous research, in the UK, higher age participants were more likely to trust information. It is interesting that when examining in-dividual countries, in the UK, the older the participant the more likely they were to trust in the information provided by public authorities while in the USA the older participants were less likely to trust in the information. Higher age was associated with trust in financial measures in the total sample with Norway exhibiting the same pattern. This may be attributed to the financial stability or less reliance on employment for older adults due to having more access to a steady income due to retirement or benefits due to age that are received from public support that may increase their level of trust in financial measures.

Women have been described as having greater trust than men overall even when something has occurred to violate trust (Halselhuyn et al., 2015). Feminine traits of being forgiving, empathetic, and community oriented have been associated with greater trust in

public authorities (McDermitt & Jones, 2020). There is some thought that women are more likely to trust public authorities due to their occupations aligning with government or civil servant roles connected to the public sector (Christensen & Lægreid, 2005). Women who are caretakers of others and associated with decisions regarding healthcare and schooling of children may be exposed to more information that feels responsive to the health crisis. The USA and Australia as individual countries exhibited the same associations at significant levels, with women in Australia being 8 times more likely to report trusting information provided. Although the same trend was not observed in the UK and Norway, there were also no significant difference in the levels of reported trust in those countries based on gender as seen during the first wave of COVID-19 in UK (Enria, et al., 2021). This may be explained by social norms present in the represented countries.

Inconsistent with earlier findings by Gozgor (2021), participants with higher levels of education were found to trust information provided from public authorities at higher rates. The findings in this study are consistent with previous reports that higher education levels can be associated with greater trust in government (Charron & Rothstein, 2016, Bouckaert & Van de Walle, 2001). This may be attributed to the increased amount of time that COVID-19 policies had been in place at the time of this survey and information and data was being shared in various ways (e.g., public service announcements, news media, peer reviewed research). Access to, and greater understanding of, the information provided may have been more widespread among people with higher education levels resulting in higher levels of trust. In the data analyzed by Gozgor, responses were collected electronically with a live landing site not affiliated with an academic institution (Gozgor, 2021). Responses from the current study were collected through university landing sites, which may include more participants that are connected to an academic institution that is funded by public authorities. Being connected to an academic institution may increase access to various sources of information and increase the likelihood of these respondents to report having trust (Charron & Rothstein, 2016).

Information provided through various sources about access to financial stimulus packages may influence the levels of reported trust. While employed individuals were more likely to affirm trusting financial measures provided overall, Norway was the only specific country to mirror this trend at a significant rate. As personal experiences influence attitudes, those who are employed may feel that the aid provided during a time of crisis is sufficient without having personal experience of reliance on federal aid. Individual experiences influence our thoughts, attitudes, and behaviors (Schwerter & Zimmermann, 2020). People who did not trust guidelines for public behavior, and acted accordingly, may be more likely to contract the virus (Schwerter & Zimmermann, 2020). This could explain the association between infection and lack of trust in authorities' information. In addition, people who have tried their best to follow the guidelines may still have contracted the virus. This may also have contributed to lower the trust among those who have been infected.

Spending less time on social media may decrease potential exposure to invalid news (Bonsaksen et al., 2021). While the use of social media to engage with others and maintain relationships can support social and emotional health, each unit increase in social media use was found to be associated with lower likelihood of trusting in government information or financial responses to the public health crisis. Adjusted associations for social media use demonstrated less likelihood of trusting information and financial measures overall. Using social media less may reduce the amount of conflicting information present. For example, a newsfeed on social media will share a variety of information without a person seeking information. Information provided on social media can come from various sources that may not be credible. In the US, less social media use did not increase the odds of reporting trust in information provided by public authorities

although it did increase the odds of reporting trust in financial measures put into place to address the impact of COVID-19. This difference may be due to the political climate of the election cycle of the US during data collection.

Trust can influence the behaviors of citizens to reduce the spreading of COVID-19 by following guidelines and recommendations with support from public authorities (Jakovljevic et al., 2020). The lower likelihood of trust among males, those with lower levels of education, unemployed individuals, those that live in rural or farming communities, people who have been infected by coronavirus, and frequent users of social media can also lead to challenges in decreasing the spread of COVID-19. The results provide an opportunity for public authorities to engage with those groups that are less likely to report having trust in public authorities in order to increase the effectiveness of addressing this global health pandemic and prepare to manage future crises'.

5. Conclusion

This study aimed to examine trust in public authorities held by the general population based on sociodemographic variables and lived experiences. Higher education, identifying as female, having higher levels of education, and living in urban areas were associated with trust, whereas spending more time on social media and having been infected with the coronavirus were associated with distrust.

The study provides input for social welfare professionals, policy makers, and program development administrators on the need to identify and target groups based on their levels of trust, especially as it relates to information and financial support provided by public officials. It is critical that public authorities use engagement strategies that promote trust in information and policies. Practices that engage citizens can lead to an increased investment in prevention and commitment to participating in intervention measures implemented to mitigate the negative impacts of COVID-19. Future research needs to continue to measure change over time and focus on shifts in trust in public authorities during and after the COVID-19 pandemic.

Professionals that are responsible for social welfare, policy development, and program administration should be aware of the differences in the general public's likelihood to trust information and financial support offered when developing programs that target different population groups. Trust among citizens may be a vital component when seeking to increase effectiveness of interventions that are used to support the safety and wellness of communities. Increasing trust may foster higher levels of public health compliance to reduce the spread of COVID-19.

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