COVID-19 Isolation Mandates Decrease Out-Group Hostility in the MENA Region

Annie Gold
The COVID-19 pandemic has had a devastating impact on the global economic landscape, leading to unprecedented unemployment spikes, supply chain standstills, and small business shutdowns. From a healthcare perspective, national governments have struggled to provide sufficient care and vaccination to citizens, often requiring strict curfews to remedy the lack of available healthcare provisions. The MENA (Middle East and North Africa) region has especially suffered during the pandemic. However, despite the challenging fiscal climate and underprovision of healthcare services, results from the 2021 Arab Barometer survey indicate that citizens’ tolerance of different ethnic and religious groups has increased since the onset of the COVID-19 pandemic. While some ethnic and religiously-based conflicts have persisted, such as violent outbreaks between Hamas and the Israel Defense force, individual-level tolerance toward ethnic and religious minorities and immigrants has increased significantly. Such findings run contrary to existing theories tying economic difficulty to feelings of hostility towards other groups or government coercion to increased minority oppression. In short, amid circumstances that typically turn ethnic and religious groups against one another, tolerance levels between groups have increased, not decreased.

One potential answer to this inconsistency lies in a unique but sometimes overlooked consequence of the pandemic: isolation. Mandated curfews, business shutdowns, and stay-home policies have impelled the global community indoors as never before. Between April and October of 2020, over seventy-five percent of nations required stay-at-home mandates, isolating over 6 billion individuals and families in their homes (Oxford Global Change Data Lab). In the MENA region, stay-home policies were enforced with threats of jail time. In Tunisia, the government established the National COVID-19 Monitoring Committee, commissioned to enforce curfews
and at-home mandates and regulate the supply of basic goods to families in need of assistance. Morocco and Jordan developed teleworking networks for public sector employees, providing further incentive to remain in isolation. Countries including Algeria, Iran, Jordan, Kuwait, Lebanon, Saudi Arabia, Tunisia, United Arab Emirates, and Yemen implemented full lockdowns for at least one month in 2020, while all others imposed mandatory night-time curfews and limits on social gatherings (OECD COVID-19 Crisis Response Report 2020). In sum, all citizens within the MENA region experienced startling and continued isolation for at least several months in 2020.

For decades, tolerance literature focused on the benefits of increased out-group (members of a different ethnic or religious community) interaction in order to reduce prejudice and hostility between groups. However, recent findings by Condra & Linardi (2019), Hangartner & Dinas (2019), Enos (2017), and Palluck & Green (2019) indicate that casual intergroup contact—including brief, repeated physical proximity—leads to outgroup hostility, not tolerance. In other words, reducing casual interactions between ethno-religious groups should decrease feelings of hostility in members of both groups, allowing for increased tolerance. The results of the 2021 Arab Barometer survey illuminate another natural occurrence opposing earlier research. The results show that during a period of significantly less casual contact, ethno-religious tolerance levels increased. Thus, I argue that forced isolation through stay-home mandates significantly decreased casual physical contact between ethno-religious groups in the MENA region, decreasing intergroup hostility across ethno-religious lines. To test this hypothesis, I compare data of tolerance question averages from five waves of the Arab Barometer survey, focusing on Algeria, Iraq, Jordan, Kuwait, Libya, Morocco, and Tunisia. Resulting analysis indicates that isolation from the COVID-19 pandemic led to a measurable increase in individual-level tolerance in the Middle East and North Africa.

The paper continues as follows: first, a discussion on the current literature and understanding of the relationship between shared experience, isolationism, and tolerance, as well as alternative theories and confounding factors; second, an explanation of the theoretical framework, hypotheses, and methods for qualitative and comparative analysis; finally, an analysis of cross-country and cross-wave results broken down by out-group type and potential topics for future discussion and examination.

Current Literature

To better understand patterns found in post-pandemic behavior, we must first examine relevant literature concerning intergroup relations and interactions, starting with Allport’s contact hypothesis. Allport’s thesis asserts that under certain conditions, interpersonal contact can reduce out-group bias (Allport 1954). Allport’s conditions include equal status, common goals, cooperation, and institutional support. In 2006, Pettigrew & Tropp performed a massive meta-analysis of Allport’s theory using over 500 studies. Their work confirmed the correlation between contact and decreasing prejudice. In addition, they posited that, “Allport’s conditions are not essential
for intergroup contact to achieve positive outcomes. In particular … samples with no claim to these key conditions still show significant relationships between contact and prejudice” (Pettigrew & Tropp 2006, 766).

More recent studies by social psychologists provided varied results and contradictions to past beliefs. In their own meta-analysis, Paluck & Green (2019) found that effects of contact vary significantly by the type of prejudice addressed. Thus, intergroup contact generated mixed results depending on the type or origin of the prejudice (ethnic, religious, etc.) at play. Through a randomized control trial simulating demographic changes, Enos (2017) concluded that people continually exposed to members of incoming out-groups underwent a strong exclusionary shift, relative to a control group, in their attitudes toward the out-group. Said simply, geographic proximity in the form of demographic changes increased hostility to outgroups. Similarly, Hangartner & Dinas studied Greek islanders’ perception of refugee issues based on their geographic proximity to Turkey, which was receiving a massive influx of refugees at the time. Refugees passed through these islands on their way to Turkey. Hangartner & Dinas (2019, 2) concluded “direct exposure to refugee arrivals induces sizable and lasting increases in natives’ hostility toward refugees, immigrants, and Muslim minorities; support for restrictive asylum and immigration policies; and political engagement to effect such exclusionary policies.” Condra & Linardi (2019) found similar results studying casual interactions between day laborers in Afghanistan post-conflict. Essential to pandemic-relevant environmental factors, they posited that laborers were equally altruistic toward the ingroup and out-group when out-group members were not physically present. Again, physical proximity proved to be a detriment to intergroup relations, while a lack of casual interaction allowed for greater perception of tolerance at the individual level, especially in post-conflict regions.

While other recent studies have found success with contact theory, such studies focus on institutionalized integration or, as Condra (2019, 5) explains, settings where strong norms regarding cooperation can be maintained and relationships have time to form. Similar studies include ethnically integrated schools (Alexander & Christina 2011), military integration quotas in Burundi (Samii 2013), receiving medical care by Palestinian doctors in Israel (Weiss 2021), and Christian and Muslim combined soccer teams in post-ISIS Iraq (Mousa 2020). All such studies have found various degrees of successful integration and lowered levels of hostility towards out-group members after repeated interaction. However, these institutionalized or formal interactions differ from brief, proximal intergroup contact as they allow for a formal space to find commonality with out-group members, while casual brief interactions only enhance differences between groups.

Social psychologists explain the negative impact of casual contact and brief physical proximity through neural reactions and subconscious threat signals attributed to observable out-group differences during brief interactions or physical proximity. Sambanis and Shayo (2013) posit that out-group biases are motivated in part by psychological motivation: emotional attachment or hostility due to perceived similarities
to and differences from an out-group or ethnic group. This attachment leads indi-
viduals to care about the welfare of others perceived as similar or familiar (Tajfel &
Turner 1986). In addition, Chandra and Horowitz (2006; 1985) conclude that sharing
the same physical space with strangers that are non-coethnics exposes individuals
to an array of descent-based attributes that differentiate groups from one another,
including facial features, accents, scents, and gestures. Further, neurobiological stud-
ies show that these attributes are well-known sensory stimuli that activate the limbic
system, the part of the brain responsible for the unconscious assessment of threat
and familiarity (Brück, Kreifelts, and Wildgruber 2011; Leukel 1976; Shah et al. 2001).
These stimuli and threat assessments generate unconscious unpleasant physical re-
actions and signals to the body, which are then cognitively translated into negative
perceptions and associations with out-group members (Gubler 2017).

Theoretical Framework

Due to a general lack of healthcare resources and facilities, the COVID-19 pan-
demic impelled MENA countries to implement long-term stay-at-home mandates
and/or nightly curfews. Such tactics forced all citizens and residents, regardless of
ethno-religious identity or immigrant status, indoors and off the streets. Even after
at-home mandates were lifted, restrictions on social gatherings and social distancing
rules remained in force. First, I argue that prolonged and intensive isolation drastical-
ly decreased casual intergroup contact, such as physical proximity in grocery stores
and restaurants, etc. Second, according to Condra & Linardi (2019), that individuals
are equally altruistic toward the ingroup and out-group when out-group members
are not physically present, but feelings of altruism towards the out-group decrease
with brief proximal contact. Third, that the lack of casual contact would account for
increased out-group tolerance levels in the 2021 Arab Barometer survey. In sum, resi-
dents of MENA countries become more altruistic towards out-groups when contact
with out-group members is curbed, and COVID-19 isolation mandates mitigated both
in-group and out-group physical proximity at a casual non-institutionalized level. To
measure this correlation, I analyze trends from each scatter plot, looking for countries
which experienced an increase in tolerance levels after the COVID-19 pandemic.

At an institutional level, I argue that various forms of intentional contact re-
mained intact but did not increase. Interactions with ethno-religious others in the
form of healthcare workers, policing forces, co-workers, etc. continued, despite much
of the labor force and public services being moved to online and teleworking plat-
forms. Virtual platforms facilitated and maintained professional relationships which
predate the pandemic, rather than generating new relationships. Thus, without a
region-wide increase in institutional integration and interaction, it is not possible for
such interactions to lead to the aforementioned increase in ethno-religious tolerance.

The mechanism for increased tolerance from decreased casual contact lies in the
neurological reaction to out-group attributes, enhanced by post-conflict regions. Shar-
ing the same physical space with strangers that are non-coethnics exposes individuals
to an array of descent-based attributes that differentiate groups from one another (Chandra 2006; Horowitz 1985). These attributes are sensory stimuli that activate a part of the brain responsible for the unconscious assessment of threat and familiarity (Brück, Kreifelts, and Wildgruber 2011; Leukel 1976; Shah et al. 2001). According to Mousa (2020), these reactions are stronger in post-conflict regions, where threat signals are stronger and result in greater hostility toward the out-group. To account for this mechanism, I analyzed whether countries with significant conflict in the last two decades were more likely to experience an increase in tolerance levels post-COVID than those without recent conflict.

**Hypotheses**

The study contains three hypotheses, each relating to various elements of the theoretical framework. First, $H_1$ insists that countries will experience an increase in outgroup tolerance post-COVID, or at least a uniform break from previous trends. This does not mean that scores must be higher than previous years; rather, there must be a visible trend throughout all participating countries. To test this hypothesis, I used scatterplot visualizations to compare country-specific tolerance levels over various years pre- and post-COVID-19 pandemic. $H_2$ implies that variation among country-level data will occur due to the variation of country-level isolation policies and strength. To test this, I analyzed country-level differences in tolerance scores over time compared to the strength of COVID-19 isolation policies, using data from the OECD COVID-19 Regional Response Report. Finally, $H_3$ highlights the theoretical mechanism that post-conflict countries will have a stronger reaction to the lack of casual contact than those without recent conflict. This is measured by observing changes in tolerance levels via the scatter plots as well as identifying which observed countries experienced large scale conflict in the last two decades. The three hypotheses are:

$H_1$: Countries will experience an increase in outgroup tolerance post-COVID, or a uniform break from previous trends

$H_2$: Countries with higher isolation scores are more likely to experience an increase in tolerance scores than countries with lower isolation scores

$H_3$: Countries with higher levels of conflict will experience more significant increases in tolerance scores

**Methods & Data**

To both visualize and compare tolerance scores across survey waves and countries, I compiled country-specific tolerance scores for each measured out-group (other religion, other race, immigrants, other Islamic sect) then visually plotted them across
waves. Tolerance questions Q602:1-4 and Q303:1-3 from the Arab Barometer Survey in waves I, II, IV, V, and VI were used to calculate scores and identify trends. Included questions asked subjects to score their willingness to live in proximity to each out-group. Waves IV, V, and VI included Q602:1-4, which used a Likert scale to measure tolerance, 1 being “strongly disliked” and 5 being “strongly like.” Thus, average scores closer to 1 indicate lower levels of tolerance while scores closer to 5 indicate higher levels of tolerance for the provided out-group. Waves I and II used Q303:1-3, which provided a binary scale, 1 being “I do not wish” and 2 being “I do not mind” (Arab Barometer Survey 2020; 2007). For waves I and II, I rescaled values to 3 being “I do not wish” and 4 being “I do not mind” so average scores would align with scores from waves IV, V, and VI in terms of direction and mean. Wave III did not include any tolerance questions and was therefore excluded from analysis. Sample questions from survey waves I and VI are included below:

**Figure 1.1. Sample Question Q602; AB Wave VI Part III (Apr–May 2021)**

**Q602** For each of the following types of people, please tell me whether you would like having people from this group as neighbors, dislike it, or not care.
1. Strongly dislike
2. Somewhat dislike
3. Would not care
4. Somewhat like
5. Strongly like

98. Don’t know [INTERVIEWER: DO NOT READ]
99. Refused to answer [INTERVIEWER: DO NOT READ]

**[PROGRAMMER: RANDOMIZE]**

<table>
<thead>
<tr>
<th></th>
<th>People of a different religion</th>
<th>1 2 3 4 5</th>
<th>98 99 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>People of a different race or color</td>
<td>1 2 3 4 5</td>
<td>98 99 100</td>
</tr>
<tr>
<td>2</td>
<td>Immigrants or foreign workers</td>
<td>1 2 3 4 5</td>
<td>98 99 100</td>
</tr>
<tr>
<td>3</td>
<td>People of a different sect of Islam</td>
<td>1 2 3 4 5</td>
<td>98 99 100</td>
</tr>
<tr>
<td>4A</td>
<td>People of a different sect of Christianity</td>
<td>1 2 3 4 5</td>
<td>98 99 100</td>
</tr>
<tr>
<td>4B</td>
<td>[PROGRAMMER: IF Q1012=2]</td>
<td>1 2 3 4 5</td>
<td>98 99 100</td>
</tr>
</tbody>
</table>
All participating MENA countries included data sets from at least two survey waves, one of which being the final post-COVID wave (wave VI). These limitations allowed for a large variety of country analysis while assuring comparison between pre- and post-COVID waves. Based on the limitations, participant countries included Algeria, Iraq, Jordan, Kuwait, Libya, Morocco, and Tunisia. The seven included countries successfully represent the economic, political, and geographic variation in the region, accounting for both oil-rich (Algeria, Iraq, Kuwait, Libya) and oil-poor nations (Jordan, Morocco, and Tunisia), geographic diversity (North Africa, Levant, Gulf regions), and variation in regime type (democracy, monarchy, emirate). This diversity acts as a natural control for country-level non-time dependent factors including GDP, regime type, geographic location, and oil wealth. However, the variety alone does not account for time-varying factors across countries, including internal conflict during the pandemic, government changes, or other country-specific events during this time frame. To assure demographic uniformity across the five waves, I compiled and compared religious demographics across each wave. The percentage of total Muslim, Christian, and Jewish participants was within 5 percentage points across all survey waves, indicating a sufficient uniformity cross-waves to allow for accurate comparison. In addition, all calculations used embedded survey weights and stratum, allowing for accurate cross-observation despite fluctuation in sample sizes and distribution.

To accurately compare ethno-religious tolerance scores, I calculated the average score per country per question (Q1: Other religion; Q2: Other race; Q3: Immigrants and foreign workers; Q4: Other sect of Islam) for each of the five included waves of the Arab Barometer Survey. Wave I did not include Q4 and was not included in those scores. Respondents who did not answer or indicated they did not want to answer were not included in the average score calculations. Using the average scores for

<table>
<thead>
<tr>
<th>q3031</th>
<th>Followers of other religions</th>
<th>1 = I do not wish</th>
<th>2 = I do not mind</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>98 = Can’t Choose/Don’t know</td>
<td>99 = Decline to Answer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 = Not provided/Not useable</td>
<td></td>
</tr>
<tr>
<td>q3032</td>
<td>People of different race or color</td>
<td>1 = I do not wish</td>
<td>2 = I do not mind</td>
</tr>
<tr>
<td></td>
<td></td>
<td>98 = Can’t Choose/Don’t know</td>
<td>99 = Decline to Answer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 = Not provided/Not useable</td>
<td></td>
</tr>
<tr>
<td>q3033</td>
<td>Immigrants and guest workers</td>
<td>1 = I do not wish</td>
<td>2 = I do not mind</td>
</tr>
<tr>
<td></td>
<td></td>
<td>98 = Can’t Choose/Don’t know</td>
<td>99 = Decline to Answer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 = Not provided/Not useable</td>
<td></td>
</tr>
</tbody>
</table>
each question per country, I generated scatter plots for each question in Stata. The y-axis for each graph was the average score per country and the x-axis was the Arab Barometer wave, allowing for analysis of score change over time. The scatter plot graphs allow for qualitative visual comparison of average scores, which will be used to test the various hypotheses related to increased ethno-religious tolerance due to COVID-19 isolation.

Country-level isolation scores were calculated using information from the OECD COVID-19 Crisis Response Report, which provided five dimensions of isolation-related tactics used during the pandemic (lockdown, nightly curfew, social distancing, masking, and quarantine) (OECD COVID-19 Report 2020). Each of the five dimensions had a value of 1, with a total isolation score out of 5. Only one participant country had a score lower than 4 (Iraq: 3), while all other countries were between 4 and 5 (see Image 1.3). The isolation score did not control for efficacy of mandates, due to the recentness of events and limited information in this regard across available sources, most prominently the OECD Crisis Response Report and Oxford Stringency Index (Oxford COVID-19 Response Tracker 2020). However, as additional information on enforcement and adherence comes to light it should be included in future analysis.

<table>
<thead>
<tr>
<th>Country</th>
<th>Lockdown</th>
<th>Nightly Curfew</th>
<th>Social Distancing</th>
<th>Masking</th>
<th>Quarantine if (+) Test</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>4/5</td>
</tr>
<tr>
<td>Iraq</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>3/5</td>
</tr>
<tr>
<td>Jordan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>5/5</td>
</tr>
<tr>
<td>Kuwait</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>4/5</td>
</tr>
<tr>
<td>Libya</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>5/5</td>
</tr>
<tr>
<td>Morocco</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>4/5</td>
</tr>
<tr>
<td>Tunisia</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>4/5</td>
</tr>
</tbody>
</table>

*Data gathered from OECD COVID-19 Crisis Response Report 2020

Limitations to analysis are plentiful. Qualitative analysis does not account fully for possible confounding variables at both the country and individual level, as well as the combination of levels. However, due to the large sample sizes (approx. 20,000 survey respondents per wave) and a variety of included MENA nations, the natural variety provides enough control of confounding factors to depict regional trends accurately. In addition, the survey data analysis was weighted with provided survey weights and stratum to account for other individual-level discrepancies across waves. In short, while there are limitations, the chosen methods illuminate existing regional trends accurately.
Results

After analyzing the datasets for Arab Barometer Waves I, II, IV, V, and VI, I calculated the average scores per country for each of the four tolerance questions and plotted them visually on four out-group based graphs. Each graph included average tolerance score per country on the y-axis and Arab Barometer wave on the x-axis, with dashed lines at Arab Barometer wave II and between waves V and VI to indicate the Arab Spring (2011) and the COVID-19 pandemic (2020). Higher y-axis scores indicate higher levels of tolerance while lower scores indicate lower levels of tolerance. The graphed trends indicate a universal increase in tolerance levels for almost all countries across all four groups (other religion, other race, immigrants, other Islamic sect) post-COVID. In addition, all countries with tolerance scores of four or five experienced an increase in tolerance levels from 2018 to 2021; however, Iraq, the only country with an isolation score of three, showed a decrease in tolerance between 2018 (wave V) and 2021 (wave VI). With regards to the third hypothesis, countries experiencing significant conflict in the last two decades were not more likely to have a net increase in tolerance levels than those without significant conflict. Thus, there is evidence supporting both H1 and H2, but little evidence for H3.

To better understand the results, the following section breaks down the findings per out-group type (other religion, race, immigrants, other sect) and includes a discussion of each of the three hypotheses. This allows for more detailed analysis differentiated by out-group type. The first survey question uses people of different religions as the out-group, and each survey wave included almost all of the included countries.
Graph 1.1. People of Different Religion

Graph 1.1 shows country-averaged individual-level willingness to live proximally to people of a different religion. As seen in Graph 1 below, tolerance levels varied significantly across waves, with waves II and V having lower average scores across countries and spikes in waves I, IV, and VI. Based on contact and conflict theory, the dip in scores during the Arab Spring (marked at wave II) is due to increased regional conflict without decreased casual contact. While there was no significant regional conflict during wave V (2018), further investigation of this dip is necessary. In addition, while most tolerance scores increased across countries between waves V and VI, some countries’ peak scores were higher in other waves where isolation mandates were not at play (Jordan, Tunisia, Iraq).

These results from Graph 1.1 support H1, which states that countries will experience an increase in outgroup tolerance post-COVID, or a uniform break from previous trends. Here, all but one country experienced an increase in tolerance in wave VI, supporting H1. Second, H2 states that countries with higher isolation scores are more likely to experience an increase in tolerance scores than countries with lower isolation scores. The visual results of the religious out-group supported this hypothesis. Only Iraq, with the lowest isolation score broke from the pattern of tolerance increase post-COVID. While our knowledge of isolation efficacy is limited across countries, the given data shows a correlation between high isolation scores and tolerance score increase. Finally, with H3, the countries with the highest tolerance score post-pandemic
were Morocco and Iraq. Morocco has experienced limited conflict within the last two decades, while Iraq has experienced a significant amount of internal conflict. Further investigation is required to understand the H3 correlation, but the data provides very limited support for such correlation.

Overall, country scores across survey waves for people of other religions were lower than scores for other out-groups, except for immigrants and foreign workers. This is a logical observation in a region torn by sectarian and religious divides. And, as mentioned previously, the lowest scores were in wave II, during the Arab Spring. This makes sense due to the large amount of regional conflict and continued causal contact.

Graph 1.2. People of Different Race/Color

The second survey question identified tolerance of, or willingness to live by, people of a different race or color. Overall, tolerance scores across the country and survey wave were the highest for this outgroup (see Graph 1.2). External factors accounting for this might be the lack of racial diversity—as opposed to ethnic diversity—in the MENA region, primarily consisting of Turks, Arabs, Iranians, and Africans. According to the three hypotheses, this out-group shows a more general increase in tolerance levels overtime, with wave VI (post-COVID) averaging the highest tolerance scores per country. In support of H1, most countries experienced an increase in tolerance scores post-pandemic. Again, Iraq experienced a decrease in tolerance.
average score from wave V to VI, while all other countries experienced an increase, consistent with H2. Countries with the highest tolerance scores were Morocco and Tunisia, not countries with significant levels of recent conflict, again opposing H3. In sum, all countries, other than Iraq, experienced increased average tolerance scores post-COVID in wave VI, supporting the notion that minimized casual contact due to lockdowns led to increased tolerance. The unusually high average scores in wave I could be caused by lower sample sizes, and the smaller scale level. Rather than a 5-point scale, the first wave included a 2-point scale, which I averaged together. Due to the lack of nuance, results could be skewed upwards.

Graph 1.3. Immigrants/Foreign Workers Scatter Plot

In regards to the immigrant and foreign worker out-group displayed in Graph 1.3 (see above), there are also clear trends of increased tolerance post-COVID. Overall scores are highest in wave VI, excluding wave I, except for Jordan, which had very similar scores in waves IV and VI. Despite the wave I results, more recent trends indicate that average tolerance scores pre COVID-19 were visibly lower than post, and all countries experienced an increase between waves V and VI, even Iraq slightly, supporting H1. Like Graph 1 and Graph 2, results show that Iraq, which lacked strong lockdown protocols, experienced the most minimal increase, again supporting H2. Countries that experienced significant conflict in the last two decades, including Libya and Iraq, were among the highest tolerance scores post-COVID, but Morocco
and Tunisia were the highest and experienced significantly lower levels of conflict in the recent past, contrary to H3. Again, while H1 and H2 appeared to be supported, H3 received contradictory results.

In addition, included countries with the highest percentage of foreign workers and immigrants, such as Kuwait and Jordan, had the lowest tolerance scores throughout and post-COVID. This aligns with the anti-immigrant and foreign worker campaigns present throughout each nation due to economic issues. Again, the unusually high average scores in wave I could be caused by lower sample sizes and the smaller sample scale. Rather than a 5-point scale, the first wave included a 2-point scale, which I averaged together. Thus, due to the lack of nuance, results could be skewed upwards.

**Graph 1.4. Different Islamic Sect Scatter Plot**

Graph 1.4 (see above) displays the fourth tolerance measure regarding willingness to live nearby members of a different sect of Islam. This question was only administered to participants who indicated that they were Muslim in the earlier demographics portion of the survey; thus, the sample size was smaller than the other out-groups from graphs 1.1–1.3. In addition, this question was not included in the first survey wave. This lack of data and smaller participant size can explain some of the inconsistencies in the results. The average scores are much less uniform throughout Graph 1.4 than other graphs, and trends are less significant. However, many
countries still experienced an increase in tolerance levels from waves IV and V to wave VI, consistent with H1. In addition, Iraq was the only country to experience a post-pandemic tolerance score decrease, again supporting H2. In regard to conflict, the results again did not support the theory that post-conflict regions should experience higher increases.

Additionally, countries with the greatest sectarian divides, such as Iraq, still had high scores throughout all accounted waves. The lowest overall scores came from Morocco and Jordan, which lack prominent sectarian issues. However, Jordan is geographically proximate to countries with sectarian issues such as Iraq. There was no data from wave I, so the patterns are more short term than other out-group measures.

Graph 1.5. All Out-Groups

Finally, a graph of all scores (see above Graph 1.5) across each survey wave indicates a general increase in tolerance in wave VI comparative to previous waves, particularly the immediately preceding wave V. While wave I still contains most of the highest average scores, the smaller sample size for wave I calls into question the legitimacy of this trend. Again, while the observed data validated H1 and H2, scatterplot data ran contrary to H3. Based on contact and conflict theory, the dip in scores during the Arab Spring (marked at wave II) is due to increased regional conflict without decreased casual contact. While there was no significant regional conflict during
wave V (2018), further investigation of this dip is necessary. Further quantitative analysis is required to understand reasons for the increased tolerance.

Conclusions

In sum, the evidence shows a general increase in tolerance levels for all out-groups post-lockdown mandates and COVID-19 restrictions. The increases in tolerance levels are most significant between wave V and wave VI, yet generally the highest tolerance levels overall were found in wave VI. While such evidence supports the first hypothesis, the data ran somewhat contrary to H2 and H3. Countries with weaker isolation policies showed higher levels of tolerance; however, only countries with weak isolation mandates showed a decrease in tolerance levels from wave V to VI. Thus, I believe further investigation of the correlation is necessary. In regard to the post-conflict enhancement of negative casual contact, the data did not significantly support the relationship. Countries with the highest tolerance scores were not those with a strong post-conflict identity; however, all countries with a strong post-conflict identity experienced an increase in tolerance between waves V and VI in at least one of the out-group graphs.

Trends were clearest regarding immigrants and those of other races and colors, while those regarding religious out-groups showed less significant effects post-COVID. I recommend further study on these inconsistencies and on how a decrease in casual contact could enhance tolerance of ethnic outgroups but not religious out-groups. In addition, I recommend further exploration of potential pandemic related reasons for why tolerance levels are increased and study of the efficacy of state-mandated isolation policies.
WORKS CITED


