Mental Well-Being of Chinese Immigrants in the Netherlands during the COVID-19 Pandemic: A Survey Investigating Personal and Societal Antecedents

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Abstract: The COVID-19 pandemic has profoundly impacted people’s lives worldwide, with negative consequences for mental health and well-being. Antecedents of mental health and well-being in times of COVID-19 have been underresearched, especially among minority groups. Therefore, an online survey was conducted investigating the personal and societal antecedents of mental well-being among Chinese immigrants in the Netherlands (N = 268). Constructs included perceived decrease of mental well-being and attitude toward the Netherlands as dependent variables and a range of potential antecedents as independent variables. Results show that participants judged the Chinese COVID-19 situation significantly more positively than the Dutch situation. Five antecedents of decreased mental well-being were found: financial concerns, social isolation, feelings of lost time, experienced racism, and distrust of Dutch COVID-19 information and figures. The antecedents of participants’ attitude toward the Netherlands were largely different: missing China, perceived difficulty of traveling to China, distrust of Dutch government measures, trust in Chinese government measures, and distrust of Dutch COVID-19 information and figures. Fear of the virus itself did not significantly affect either of the dependent variables. The results call for a broad perspective on factors associated with mental well-being and for special attention for minority groups in the societal dynamics.

Keywords: COVID-19; immigrants; mental well-being; pandemic; racism; trust

1. Introduction

1.1. Background and Objective

With a magnitude already comparable to that of the infamous Spanish influenza, the COVID-19 pandemic has drastically affected people’s lives everywhere [1]. The world has been struggling with the pandemic for more than a year now. Despite impressively rapid medical and pharmaceutical work developing testing methods, vaccinations, and treatments, the containment of the virus largely depended on individual and organizational behavior. In the course of time, governments imposed measures such as social distancing, strict hygiene instructions, quarantines, facemask obligations, lockdowns, and curfews. In addition to the fatalities and severe physical conditions directly caused by the virus, many studies have drawn attention to its potential side-effects. Aside from warnings of a severe economic backlash in the near future [2,3], most urgent warnings involve the pandemic’s effects in the here and now on people’s mental health and well-being [4–6].

Many empirical studies, conducted in a wide range of national contexts and in different phases of the pandemic, confirmed that mental health and well-being are threatened by COVID-19, although the magnitude of the effects found varied [7–12]. Negative effects...
confirmed include anxiety, fatigue, stress, insomnia, distress, and depression. An important follow-up research question would be which factors explain people’s state of mental health and well-being in times of COVID-19.

So far, research predominantly aimed at either identifying groups of people with heightened risks or evaluating the effects of psychological resources or interventions. To identify high-risk groups, many studies investigated the relationships of people’s mental health or well-being with a wide range of more or less stable background characteristics. These characteristics can be characterized as “non-modifiable factors” (p. 1 [13]), which may have already been present before COVID-19 started and which do not necessarily provide clues for developing interventions. Studies, for instance, focused on the relationship of mental health or well-being with demographics [11,13–31], living conditions and personal relationships [19–23,25,27–29], lifestyle and media use [19,22,24,26,32,33], psychological traits [15,18–20,25,29,34], physical or mental health status before the pandemic [11,12,14,18,22,24,25,27,29,30], belonging to recognized high-risk groups [13,16], and having COVID cases among family, friends, and acquaintances [18,23,29,32]. Studies evaluating the effects of psychological resources or interventions focused on preventing or solving mental health problems, either by means of resources people may already have, such as flexibility [35] or resilience [29,36], or by means of trained skills or dispositions, such as stress management [20] or coping strategies [25,32].

Despite their potential value, both types of research do not substantially contribute to our understanding of the causes of the mental problems people have in times of pandemics: Are mental health and well-being affected by people’s fear of the virus, by the loneliness resulting from government measures to contain the virus, or by any other factors triggered by the pandemic? More research is needed on the personal and societal antecedents of mental health and well-being, unraveling how people perceive the many different aspects simultaneously occurring during the COVID-19 pandemic and relating them to their mental health or well-being. The study reported in this article aims to make such a contribution.

Moreover, our study focuses on a specific group of citizens with a unique perspective on the COVID-19 pandemic, whose voice is underexposed in the academic literature: Chinese immigrants in Western countries (in our case, the Netherlands). The unicity of their perspective involves two characteristics. First, since the earliest cases were reported in China, several studies have drawn attention to the rise of stigmatization and racism against Chinese (and, for that matter, Asians in general) as a result of the pandemic [37–46]. Most evidence comes from the United States [37,39–42,45,46], complemented by studies from the United Kingdom [38], France [43], and Canada [44]. It is imaginable that similar mechanisms occur in other Western countries as well. The rise of stigmatization and racism is fueled by the explicit scapegoating and name-calling (the “China virus”) by Western leaders and must be seen in a broader context of international tensions [43]. Three of the studies mentioned found that the perceived increase of anti-Asian racism was negatively related to mental health [37,44,46], a finding generically corroborated by a much larger body of research [47,48]. Second, Chinese immigrants are in the position to compare the handling of the pandemic in their host country with that in China, combining a heightened interest in developments in both national contexts and having access to Western and Chinese information sources. They were already aware of the dangers of the pandemic when the dominant view in Western countries was that a worldwide outbreak would not happen. They witnessed the differences between the rigorous handling of the pandemic in China and the Western pandemic response, which they saw as weak and flawed. A qualitative study of Chinese immigrants in Spain clearly illustrated this perspective: Participants expressed deep concerns about the nonchalant way their host country dealt with the pandemic [49]. An ethnographic study in Canada found that Chinese immigrants developed a sense of “double unbelonging” (p. 207), as they could not understand the Western pandemic response and at the same time experienced barriers to return to China due to Chinese border measures [44].
1.2. Current Insights about COVID-19 and Mental Health and Well-Being

Research on demographics revealed some interesting general tendencies. Regarding gender, many studies found that women are more negatively affected by the pandemic than men [11,13,14,16–19,21–23,26,27,30,31]. In contrast, however, one study found that men are more prone to depression than women [20] and another study drew attention to the mental health of non-binary people, who had the strongest negative response [14].

Regarding age, research found that younger people are more negatively affected by the pandemic than older people [11,13,15,16,20,21,25,28], but some other studies found that people older than 55 are more vulnerable [19,31]. Besides this, two studies suggested a differentiation among young people, showing that senior students are more negatively affected than junior students [23,29]. Regarding educational level, the research findings were mixed and unclear [16,21,22,24].

Several studies suggest that salience of COVID-19 health risks may be a relevant factor in people’s mental reactions to the pandemic. First, people who belong to high-risk groups are more negatively affected by the pandemic than those who are not [13,16,25,26]. Second, people with prior mental or physical health problems experience more mental repercussions than those in good health [11,12,14,18,22,24,25,27,29,30]. Third, people who know of COVID-19 infections or quarantines in their immediate environment are more affected than those who do not [18,23,29,32]. Fourth, people with certain symptoms (myalgia, dizziness, coryza) are more affected than people without such symptoms [11].

Research also suggests that the conglomerate of living conditions, relationships, lifestyle, and media use affects people’s mental response to the pandemic. People’s household composition and social network may give them the social support that reduces the impact of COVID-19 on their mental health and well-being [19,21,23,25,28]. On the other hand, household composition may have detrimental effects, caused by interpersonal tensions [19] or extra worries when living with dependent seniors [21,28], children below 18 [17], or children working outside [18]. Two studies found that people living in rural areas are more vulnerable to mental health problems than people living in urban areas [22,23]. Furthermore, a larger house [22], a healthy working environment [19,21,22], spending time outdoors [22], social activities [19,33], keeping a daily routine [30], and physical exercise [30,31,34] appear to alleviate the mental burden of the pandemic. Immoderate social media exposure [24,26] and alcohol abuse [27] were found to have detrimental effects.

Various psychological traits have been connected to the effects of COVID-19 on mental health and well-being. On the positive side, risk tolerance [15], optimism [13,15], forward-looking coping strategies [25], flexibility [28], resilience [29,36], positive reframing [30], openness [35], and dispositional hope [35] are traits that help people to limit the adverse effects of COVID-19. On the negative side, trait anxiety [15], negative affect [18], detachment [18], negative attention bias [19], rumination [19,25], avoidant coping behavior [28], anxious attachment [29], and extraversion and neuroticism [35] are traits that worsen the effects of COVID-19 on mental health and well-being.

1.3. The Need for More Comprehensive Approaches to the COVID-19 Pandemic Effects

Many of the earlier studies on the effects of COVID-19 seem to adopt straightforward cause-effect approaches, with the emergence or development of the virus as the cause and people’s mental health or well-being as the effect. However, the COVID-19 developments are likely to bring about many different personal perceptions at the same time, not only of the virus and its health risks but, for instance, also of the way it is handled in society. To make sense of people’s mental health and well-being during the pandemic, it is important to examine which of the myriad of perceptions relate to mental health or well-being. Earlier research by Jia et al. [13] found that adding such perceptions (which they labeled as “modifiable factors”) leads to a drastically higher percentage of explained variance (in their case from 7–14% to 57%).

Reviewing the literature about the effects of COVID-19, we distinguish four layers in people’s perceptions of and experiences with the pandemic (Figure 1). At the core is the
COVID-19 virus itself. Largely based on media reports and discussions with others, people form an idea of the dangers of the virus. Some earlier studies found that fear of the virus (sometimes operationalized in terms of perceived severity and perceived contagiousness) may play a significant role in people’s mental health and well-being [13,19]. This aligns with the abovementioned personal characteristic of risk salience. However, both studies were conducted in the early phases of the pandemic. It is imaginable that people’s risk perception decreases over time due to a process of habituation [50].

Figure 1. Four layers of public perceptions of the COVID-19 pandemic.

However, the impact COVID-19 has on people involves more than its medical consequences. Governments worldwide took drastic measures to contain the virus, limiting people’s freedom and affecting daily life in many respects. Companies struggle to survive and concerns about immediate and long-term economic effects of the pandemic are omnipresent [2,3]. Therefore, the second layer involves the impact COVID-19 plus the government measures have on people’s lives. Earlier research particularly addressed three such factors: (1) economic consequences, including job insecurity and financial concerns [26,30,31,51], (2) social isolation and loneliness [33,52–54], and (3) disruptions of normal life (“liveliness”) and opportunities [26,30,32].

The third layer involves the societal dynamics that the pandemic and the government measures incite. The aforementioned rise of anti-Asian racism would be a clear example of that [37–46]. More recently, conspiracy theories, social unrest, and riots are other examples within this layer.

To conclude, the fourth layer involves people’s monitoring of the effectiveness of the strategies used to find a way out of the pandemic. Earlier research suggested that public trust in the government [55], trust in doctors [56], and accurate health information [11,56] have a positive relation with mental health and well-being. Similarly, hope (as opposed to hopelessness) was found to play a role in people’s mental response to the pandemic [30,33].

1.4. Mental Health and Well-Being

Though not as long and established as research into physical health, research on mental health and well-being is a well-established field of academic research. The World Health Organization (WHO) defined mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” [57]. With this broad definition, the WHO made a strong connection between mental health and (psychological or subjective) well-being and moved away from earlier (limited) views on mental health as the absence of mental illness or problems. Research suggests that the concepts of mental health, well-being, happiness, and quality of life are closely related [58]. Several short overall measures of mental health or well-being have been proposed and tested in the literature [59–61].
However, given the comprehensiveness of the aspects covered by definitions of mental health and well-being, several differentiations within the concept have also been used. A typology of mental well-being, along with a rich vocabulary of affective states, was developed using the two orthogonal axes of arousal and pleasure [62]. Distinctions have been proposed between affective well-being (the presence or absence of positive or negative affect) and cognitive well-being (the cognitive evaluation of life) [63] and between hedonic well-being (focusing on happiness) and eudaimonic well-being (focusing on meaning and self-realization) [64]. These studies suggest that different views on mental health and well-being might have different antecedents. In our study, however, we focused on an overall conception of well-being, leaving possible differentiations of well-being for future research endeavors.

An important research line in well-being studies involves effects of life events on people’s well-being. Life events may be personal (e.g., marriage, divorce, death of a loved one, unemployment) or collective (e.g., natural disasters). Many studies confirmed relations between life events and people’s degree of well-being, although the relation is often not as simple and straightforward as might be expected [65–69]. Different life events may have effects on different aspects of well-being and trait characteristics play a role in the way people react to such events. The COVID-19 pandemic is a clear example of a collective life event, which triggered many health and well-being scholars to conduct research.

1.5. Present Study

To investigate Chinese immigrants’ perceptions of and experiences with the COVID-19 pandemic, we conducted an online survey during the second wave of the pandemic (November–December 2020) among Chinese immigrants living in the Netherlands. Our research question was: What are the personal and societal antecedents of the mental well-being of Chinese immigrants living in the Netherlands during the COVID-19 pandemic? We focused on two dependent variables: (1) Chinese immigrants’ perceived decrease of mental well-being (the perceived change in position on the continuum between depression and happiness since the start of COVID-19), and (2) their attitude toward the Netherlands (the perceived change in their personal relation with their host country since the start of COVID-19).

The antecedents included in our study covered all four layers depicted in Figure 1. In the first layer, we measured fear of COVID-19 (the extent to which participants saw COVID-19 as an imminent threat to their personal health). In the second layer, we included financial consequences (the extent to which participants worried about their financial position due to COVID-19), social isolation (the extent to which participants felt that COVID-19 hindered their social life), and lost time (the extent to which participants felt that COVID-19 messed up valuable time of their lives). Specifically from the Chinese perspective, we added two additional variables: missing China (the extent to which participants felt homesick for their mother country) and perceived travel restrictions to China (the extent to which participants thought that COVID-19 made it impossible for them to travel to China within reasonable time). In the third layer, we measured experienced racism (the extent to which participants experienced an increase in racism and discrimination since COVID-19 broke out). In the fourth layer, we measured trust in various aspects of the way the pandemic was handled, both in the Netherlands and in China. Specifically the questions involved (a) the government measures, (b) the quality and accuracy of public information and official figures, and (c) people’s compliance with the measures. Figure 2 gives an overview of the research model.

Our results confirmed the relevance of all constructs in Figure 2 for the way Chinese immigrants make sense of the COVID-19 crisis. Furthermore, they made clear that Chinese immigrants are very critical of the Dutch way of handling the pandemic. An analysis of the antecedents of the two dependent variables shows that different combinations of antecedents from the second, third, and fourth layer in Figure 1 relate to the two dependent variables. Fear of COVID-19 did not significantly relate to either dependent variable.
2. Materials and Methods

To answer our research question, we conducted an online survey among Chinese immigrants living in the Netherlands. Data were collected between 24 November and 12 December 2020. The research was approved by the university’s Ethics Committee.

2.1. Research Context: COVID-19 in the Netherlands

To facilitate an understanding of the COVID-19 situation our participants experienced, we will give a brief summary of the Dutch COVID-19 response and its societal dynamics until mid-December 2020. Comparable to the Spanish situation [49], the Dutch response to the COVID-19 pandemic started slowly [70–73]. The risks of COVID-19 hitting Europe were underestimated at first. Life was normal in late February, without any restrictions to mass gatherings such as carnival. Carnival in one of the southern provinces became an important spreading event for the virus, with people who were contaminated in Northern Italy and Austria bringing the virus back home [70,73].

When an awareness of the potential magnitude of the pandemic sank in, the Dutch policy can be characterized by measures aimed at balancing the opposite desires to contain the virus and allow personal and economic freedom [71]. Government measures aimed at “flattening the curve” and making sure that the virus would not place too high a demand on the intensive care capacity in hospitals. The intensive care capacity appeared to be quite low compared to that in neighboring countries. The hypothetical situation in which medical professionals would have to choose who can be kept alive and who must be given up was discussed in the news media. Daily reports on the COVID-19 situation focused on the question whether the measures taken already had any observable effect, not on the progress toward eventually containing the pandemic. In the news media, officials speculated about reaching herd immunity in 2020, but this did not happen [72].

The Dutch government focused more on people’s own responsibility than on enforcement [70,73]. For a long time, the cornerstones of the Dutch COVID-19 measures were washing hands and keeping distance. In contrast to many other countries, official sources denied the usefulness of wearing facemasks. When stricter measures appeared to be necessary, the government introduced an “intelligent lockdown,” which meant that people could still go out and shops could remain open. However, bars and restaurants as well as contact occupations (e.g., barber shops) were temporarily closed. In the summer of 2020, when the numbers of contaminations and hospitalizations dropped, the measures were loosened. After the summer holiday, when the situation got worse and the pandemic reached its much-feared “second wave,” the measures became stricter, including a partial lockdown, which turned into a full lockdown in mid-December.
Some authors argued that, throughout the pandemic, the Dutch measures were too lax, too slow, and too non-committal and only became strict when a general COVID-19 fatigue had taken hold of the entire population [70, 72]. Others argued that the appeal on personal responsibility was at least partially successful and doubted whether stricter measures would have been successful [71, 73]. This short impression underlines considerable differences between the Dutch and the Chinese way of handling the pandemic. In China, drastic lockdowns, quarantines, and intensive testing led to a situation in which the pandemic 19 appeared to be under control and normal life could resume, when the second wave started in Europe.

During the pandemic, news media frequently reported about anti-Asian racism, stigmatization, and discrimination in the Netherlands. Instances included hate speech on social media, name calling in the streets, refusal of services, vandalism, and physical violence. There was even a carnival song accusing Chinese citizens of causing the virus.

2.2. Participants

Participants were recruited in several complementary ways. We posted announcements on social media platforms (WeChat and Facebook), mostly on community pages of Chinese living in the Netherlands; we asked the help of various Chinese associations in the Netherlands, approached potential participants in our personal networks, and used the strategy of snowball sampling, asking participants to forward our research announcement to friends and acquaintances. To take part in the research, participants had to be at least 18 years old and meet two additional inclusion criteria: (1) having lived in China, and (2) having moved to the Netherlands after their 16th birthday.

Our recruitment resulted in a convenience sample of 268 participants. Table 1 gives an overview of their background characteristics. Compared to the general population of Chinese living in the Netherlands, it should be noted that the proportions of female participants, participants in the younger age groups, and highly educated participants in our sample were relatively high. This might be attributed to the channels used for recruiting participants and to differences among groups in their willingness to participate and must be seen as a limitation of our data set.

For a purely descriptive research question, the eventual sample size would lead to a relatively high margin of error (6%). For regression analyses focusing on investigating our research model (see Figure 2), the sample size suffices.

The other background characteristics show that our sample was diverse, with large differences in daily activities (work or study), time spent in the Netherlands, Dutch language skills, percentages of Dutch and Chinese contacts, residence permit, and integration. Furthermore, participants’ largely comparable scores on the questions about their attention to COVID-19 in the Netherlands versus China and their use of Dutch versus Chinese media underline their position at the crossroads of both national contexts.

To create one background variable representing participants’ level of integration in our analyses, we conducted a hierarchical cluster analysis with time in the Netherlands, Dutch language skills, residence, and integration as variables. This analysis resulted in two groups of participants: group 1 with a relatively low integration level (n = 213) and group 2 with a relatively high integration level (n = 53).

2.3. Instrument

The online questionnaire was designed in Qualtrics. Apart from the background questions, the questionnaire consisted of 78 items. All these items had the form of slider questions on five-point scales. Participants could move the slider to the position that best represented their viewpoint. Answers were recorded with one decimal. The entire questionnaire was in Chinese. Items were developed in English and translated by the first author. An independent bilingual researcher then checked the accuracy and comprehensibility of all items.
To evaluate the unidimensionality and distinctiveness of all constructs included, we conducted two principal-components factor analyses with varimax rotations: one for the effects of the pandemic (the two dependent variables and the seven independent variables in the first three layers) and one for the participants’ trust in the Dutch and Chinese COVID-19 situation (the six variables in the fourth layer). The factor analyses resulted in
the removal of seven items from the constructs, but all constructs mentioned in Figure 2 remained intact. The results of the factor analyses, including all items and the Cronbach's alphas per construct, can be found in Appendix A (Table A1) and Appendix B (Table A2). Mental well-being was measured with an adapted version of the Short Depression-Happiness Scale (SDHS) [60]. We kept the content of the six items the same, but changed the answering options to a Likert scale format (in line with the other items) and asked participants to compare their well-being with the time before COVID-19. The remaining items were self-formulated to optimally connect to our specific research context (see Appendices A and B).

3. Results
3.1. Descriptive Results

Table 2 gives an overview of the descriptive results of all constructs. Participants’ mental well-being, on average, did not significantly decrease since the beginning of COVID-19. Still, for 37% of the participants a considerable self-reported decrease of mental well-being was found (with a value of 3.5 or higher on the five-point scale). Participants’ attitude toward the Netherlands showed a significant overall decrease. The pandemic and its societal dynamics had a negative effect on participants’ view on their host country. All potential determinants in the first and second layer were recognized as real by the participants. In the first layer, they significantly expressed fear of COVID-19. In the second layer, financial consequences, social isolation, feelings of lost time, missing China, and perceived travel restrictions to China were all confirmed by the participants. In the third layer, experienced racism showed a tendency: not all participants experienced more incidents of racism, but 39% of them stated that they encountered more racism since the beginning of COVID-19 (with a value of 3.5 or higher on the five-point scale).

Table 2. Descriptive results.

| Construct                                      | Mean (SD) | 95% Confidence Interval |
|------------------------------------------------|-----------|-------------------------|
| Decreased mental well-being                   | 3.01 (1.15) | 2.97–3.25              |
| Attitude toward the Netherlands                | 2.25 (0.89) | 2.14–2.35              |
| Fear of COVID-19                               | 3.42 (0.85) | 3.32–3.52              |
| Financial consequences                         | 3.47 (1.00) | 3.35–3.59              |
| Social isolation                               | 3.87 (0.78) | 3.77–3.96              |
| Lost time                                      | 3.53 (1.08) | 3.56–3.80              |
| Missing China                                  | 3.37 (1.28) | 3.42–3.73              |
| Perceived travel restrictions to China         | 4.50 (0.84) | 4.40–4.60              |
| Experienced racism                             | 3.12 (1.08) | 2.99–3.25              |
| Trust in Dutch government measures             | 2.12 (0.73) | 2.03–2.22              |
| Trust in Chinese government measures           | 4.41 (0.78) | 4.36–4.55              |
| Trust in Dutch information and figures         | 3.31 (0.92) | 3.20–3.43              |
| Trust in Chinese information and figures       | 3.70 (1.04) | 3.57–3.82              |
| Trust in Dutch people’s compliance             | 2.15 (0.79) | 2.06–2.25              |
| Trust in Chinese people’s compliance           | 4.69 (0.50) | 4.63–4.75              |

Note: Constructs measured on five-point scales (1 = totally disagree; 5 = totally agree).

3.2. Correlations between Constructs

Table 3 presents the correlations between all dependent and independent variables in our study. The two dependent variables do not correlate significantly. Mental well-being correlates with all antecedents from the first three layers except for perceived travel restrictions to China. It also correlates with participants’ trust in the Dutch COVID-19 situation, but not with their trust in the Chinese COVID-19 situation. Participants’ attitude toward the Netherlands correlates with all antecedents from the first three layers except for financial consequences, for which participants may either take the responsibility themselves or blame unforeseen circumstances. The independent variable perceived travel restrictions to China has a remarkable positive correlation with attitude toward the Netherlands: the more participants agreed that it is hard or impossible to travel to China on short notice, the more positive they felt about the Netherlands.
### Table 3. Correlations between Dependent and Independent Variables.

| Variables | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. Decreased mental well-being | −0.10 | 0.26 ** | 0.35 ** | 0.42 ** | 0.60 ** | 0.27 ** | −0.01 | 0.37 ** | −0.16 ** | 0.08 | −0.21 ** | 0.09 | −0.17 * | 0.06 |
| 2. Attitude toward the Netherlands | −0.22 ** | 0.03 | −0.16 ** | −0.13 * | −0.40 ** | 0.16 ** | −0.21 ** | 0.49 ** | −0.38 ** | 0.43 * | −0.25 ** | 0.33 ** | −0.21 ** |
| 3. Fear of COVID-19 | 0.18 ** | 0.31 ** | 0.36 ** | 0.31 ** | 0.14 * | 0.22 ** | −0.24 ** | 0.24 ** | −0.22 ** | 0.23 ** | −0.20 ** | 0.18 ** |
| 4. Financial consequences | 0.19 ** | 0.32 ** | 0.11 | 0.03 | 0.29 ** | −0.01 | −0.02 | −0.01 | 0.01 | 0.02 | −0.09 |
| 5. Social isolation | 0.49 ** | 0.34 ** | 0.02 | 0.29 ** | −0.07 | 0.18 ** | −0.08 | 0.21 ** | −0.07 | 0.17 ** |
| 6. Losing time | 0.28 ** | 0.03 | 0.24 ** | −0.19 * | 0.06 | −0.12 | 0.08 | −0.22 ** | 0.08 |
| 7. Missing China | −0.09 | 0.32 ** | −0.29 ** | 0.40 ** | −0.25 ** | 0.38 ** | −0.22 ** | 0.25 ** |
| 8. Perceived travel restrictions to China | 0.10 | 0.02 | −0.03 | 0.01 | −0.07 | 0.03 | 0.07 |
| 9. Experienced racism | −0.17 ** | 0.26 ** | −0.21 ** | −0.17 ** | −0.12 * | 0.14 * |
| 10. Trust government measures (NL) | −0.23 ** | 0.54 ** | −0.11 | 0.61 ** | −0.09 |
| 11. Trust government measures (C) | −0.27 ** | 0.69 ** | −0.18 | 0.61 ** |
| 12. Trust information and figures (NL) | −0.17 ** | 0.48 ** | −0.09 |
| 13. Trust information and figures (C) | −0.10 | 0.43 ** |
| 14. Trust people’s compliance (NL) | −0.06 |
| 15. Trust people’s compliance (C) |

Note: [NL] = the Netherlands; [CN] = China; * = p < 0.05; ** = p < 0.01.
Participants’ trust in the Dutch and Chinese COVID-19 situation played a significant role in their attitude toward the Netherlands: the more they distrusted the Dutch government measures, official information and figures, and people’s compliance with measures, the more negative their attitude toward the Netherlands was. Trust in Chinese government measures, Chinese information and figures, and Chinese people’s compliance also correlate with a negative attitude toward the Netherlands. Participants’ trust in the three aspects of the Dutch COVID-19 situation (government measures, information and figures, and people’s compliance) are positively correlated, and the same applies to the three aspects of the Chinese COVID-19 situation. Participants’ trust in aspects of the Dutch situation are negatively correlated to those aspects in China.

3.3. Antecedents of Perceived Decreased Mental Well-Being

Table 4 presents the results of a hierarchical regression analysis explaining participants’ perceived decrease in mental well-being. The first model, consisting of background characteristics only, explains 5% of the variance in mental well-being. Of the five variables included, only gender contributes significantly: in contrast to the overall tendency found in earlier research, male participants had more COVID-19–related mental health problems than female participants.

| Predictors                          | Model 1          | Model 2          |
|------------------------------------|------------------|------------------|
| Gender                             | \(-0.181\) \(t = -2.932^{***}\) | \(-1.52\) \(t = -3.052^{***}\) |
| Age                                | \(-0.051\) \(t = -0.623\) | \(-0.024\) \(t = -0.362\) |
| Level of integration               | \(-0.028\) \(t = -0.338\) | \(-0.003\) \(t = -0.039\) |
| Dutch media use                    | \(-0.059\) \(t = -0.721\) | \(-0.043\) \(t = -0.676\) |
| Chinese media use                  | 0.124 \(t = 1.576\) | \(-0.042\) \(t = -0.661\) |
| Fear of COVID-19                   | \(-0.037\) \(t = -0.662\) |                           |
| Financial consequences             | 0.116 \(t = 2.181^{*}\) |                           |
| Social isolation                   | 0.126 \(t = 2.228^{*}\) |                           |
| Lost time                          | 0.446 \(t = 7.582^{****}\) |                           |
| Missing China                      | 0.019 \(t = 0.317\) |                           |
| Perceived travel restrictions      | \(-0.037\) \(t = -0.754\) |                           |
| Experienced racism                 | 0.186 \(t = 3.488^{***}\) |                           |
| Trust government measures (NL)     | 0.048 \(t = 0.741\) |                           |
| Trust government measures (C)      | \(-0.038\) \(t = -0.499\) |                           |
| Trust information and figures (NL) | \(-0.160\) \(t = -2.693^{**}\) |                           |
| Trust information and figures (C)  | \(-0.016\) \(t = -0.252\) |                           |
| Trust people’s compliance (NL)     | 0.000 \(t = 0.001\) |                           |
| Trust people’s compliance (C)      | 0.028 \(t = 0.479\) |                           |

Adjusted \(R^2\) 0.054 0.440

\(F\) 3.951 ^*** 12.346 ^****
\(df\) 5255 18,242

Note: [NL] = the Netherlands; [CN] = China; * = \(p < 0.05\); ** = \(p < 0.01\); *** = \(p < 0.005\); **** = \(p < 0.001\).

In the second model, all potential antecedents are added, leading to a significant increase of variance explained (44%). In this model, the contribution of gender remains significant, but other antecedents make more substantial contributions. The most important predictors of mental well-being are participants’ feelings of lost time, followed by the increase in racism they experienced, distrust of the Dutch official COVID-19 information and figures, fear of financial consequences of the pandemic, and social isolation. Fear of COVID-19 itself did not play a direct role in participants’ mental well-being.

3.4. Antecedents of Attitude toward the Netherlands

Table 5 presents the results of a hierarchical regression analysis explaining the way the COVID-19 pandemic affected participants’ attitude toward the Netherlands. The first model, with background characteristics as predictors, explained 3% of the variance. None of the background characteristics make a significant contribution.
Table 5. Hierarchical Regression Analysis for Attitude toward the Netherlands.

| Predictors                        | Model 1       | Model 2       |
|-----------------------------------|---------------|---------------|
|                                   | β  | t  | β  | t  |
| Gender                            | −0.053 | −0.840 | −0.025 | −0.477 |
| Age                               | 0.122 | 1.463 | −0.006 | −0.091 |
| Level of integration              | −0.052 | −0.614 | 0.045  | 0.643  |
| Dutch media use                   | 0.075 | 0.901 | 0.056  | 0.827  |
| Chinese media use                 | −0.110 | −1.375 | 0.035  | 0.516  |
| Fear of COVID-19                  | −0.050 | −0.831 |         |        |
| Financial consequences            | 0.069 | 1.203 |         |        |
| Social isolation                  | −0.045 | −0.747 |         |        |
| Lost time                         | 0.023 | 0.359 |         |        |
| Missing China                     | −0.164 | −2.618 ** |         |        |
| Perceived travel restrictions     | 0.150 | 2.897 *** |         |        |
| Experienced racism                | −0.020 | −0.346 |         |        |
| Trust government measures (NL)    | 0.295 | 4.275 **** |         |        |
| Trust government measures (C)     | −0.174 | −2.154 * |         |        |
| Trust information and figures (NL)| 0.190 | 2.900 *** |         |        |
| Trust information and figures (C) | 0.041 | 0.602 |         |        |
| Trust people’s compliance (NL)    | −0.005 | −0.074 |         |        |
| Trust people’s compliance (C)     | −0.018 | −0.277 |         |        |
| Adjusted R²                       | 0.027 | 0.362 |         |        |
| F                                 | 2.451 * | 9.204 **** |         |        |
| df                                | 5235 | 18,242 |         |        |

Note: [NL] = the Netherlands; [CN] = China; * = p < 0.05; ** = p < 0.01; *** = p < 0.005; **** = p < 0.001.

Adding all potential antecedents in the second model leads to a significant increase of the variance explained (36%). The predictors of attitude toward the Netherlands are largely different from those of mental well-being. The two most important antecedents are distrust of the way the Dutch government handles the pandemic and distrust of the Dutch COVID-19 information and figures. Trust in the way the Chinese government handles the pandemic also contributes significantly to participants’ more negative attitude toward the Netherlands, most likely serving as a benchmark of how the Dutch government should have dealt with the pandemic. In this constellation, participants’ feelings of missing China also contribute significantly to a negative attitude toward the Netherlands. Perceived restrictions to travel to China plays a remarkable role, contributing positively to participants’ attitude toward the Netherlands. This seems to indicate a mechanism of cognitive dissonance [74]: if participants realize that staying in the Netherlands is their only option for the foreseeable future, they unconsciously adjust their attitude toward the Netherlands in a positive direction.

4. Discussion

4.1. Main Findings

Many earlier studies have drawn attention to the adverse effects of the COVID-19 pandemic on people’s mental health and well-being [7–36]. Characteristics that might contribute to such effects are the unpredictability and persistence of the pandemic, the drastic measures needed, and the (nationally and internationally) divergent views on how to combat the virus. Reflections on earlier pandemics already highlighted the unavoidable role of uncertainty, ambiguity, and rapid developments over time and the way people struggle to make sense of the complex dynamics involved [75–79]. In this article, we argue for a comprehensive approach to investigate the effects of COVID-19 (and future pandemics) on mental health and well-being. The questionnaire we developed could be a starting point for such a comprehensive approach.

Distinguishing between perspectives of different groups in society is needed for understanding pandemic-related mental well-being. In this article, we drew attention to the perspective of Chinese immigrants in the Netherlands, who, according to earlier research, might experience racism and stigmatization due to the presumed Chinese origin of COVID-19 and who cannot help but compare the effectiveness of Western and Chinese approaches to fight the virus. As such, our article complements a qualitative study of
Chinese immigrants in Spain conducted in an earlier phase of the pandemic [49] and an ethnographic study of Chinese immigrants in Canada [44]. Our study further explored the relationship between COVID-19 and anti-Asian racism, by checking whether tendencies found in the United States [37,39–42,45,46], the United Kingdom [38], France [43], and Canada [44] can also be found in the Netherlands and by exploring the relationship between experiencing COVID-related racism and mental well-being in a broader context of potential antecedents of mental well-being.

Our results show that the antecedents we distinguished are all relevant for the way Chinese immigrants make sense of the COVID-19 pandemic. Participants had fear of the virus, but also worried about the financial consequences the pandemic will have. They experienced social isolation and mourned about the time and opportunities lost in the past year. They missed China, realizing that it will be hard to travel to China in the foreseeable future, and a considerable proportion of them experienced more anti-Asian racism and discrimination than before. Their trust in the Dutch way of handling the crisis was in all respects much lower than their trust in the Chinese COVID-19 situation.

Analyzing antecedents of mental well-being, we found that gender played an opposite role than what is normally found in research: male participants were more mentally affected by the pandemic than female participants. It is hard to find an explanation for this discrepancy. However, in combined with the low percentage of explained variance based on participants’ background characteristics, this contrary finding can be seen as an argument against focusing too strongly on demographics and other general background characteristics in explaining the mental health and well-being effects of a pandemic.

In the personal and societal antecedents, our results show that fear of COVID-19 is not significantly related to participants’ mental well-being. They are aware of the dangers of the virus, but they have learned to live with it. This might indicate a habituation effect [50]. Instead, the impact the virus and the measures to contain it had on the quality of participants’ lives had a strong impact on their mental well-being. Worries about their financial security, loneliness and isolation, and, most prominently, feelings of lost time were significant predictors of a decreased mental well-being. These three antecedents, which might apply to originally Dutch citizens as much as to Chinese immigrants, may have gained salience as the pandemic continued over time. A perceived increase in anti-Asian racism had an additional negative relationship with participants’ mental well-being. Concerns that participants had about the correctness and truthfulness of the Dutch COVID-19 information and figures was the last variable that related to their mental well-being. Based on written and oral reactions of participants who contacted us after responding, we have the impression that participants experienced lags, distortions, or dismissals of important facts that reached them via Chinese media.

Analyzing the antecedents of participants’ attitude toward the Netherlands, it is remarkable that the impact of COVID-19 on their lives did not contribute significantly. Apparently, participants presumed that the pandemic led to universal sacrifices, for which they were not inclined to blame their host country. Missing China was a significant antecedent of their attitude toward the Netherlands, and the unexpected positive relationship between perceived travel restrictions and attitude toward the Netherlands suggests that participants solved cognitive dissonance [74] by adjusting their attitude to the situation at hand. Furthermore, negative evaluations of Dutch government measures (in contrast to the Chinese measures) and the Dutch information and figures appeared to play a role in their attitude toward the Netherlands. Participants appeared to accept the pandemic and its consequences as a force majeure, but could not understand why the Dutch government acted the way it did, suspecting that a lack of adequate information they had access to played a role. Participants did not seem to weigh people’s behavior in their attitude toward the Netherlands: neither Dutch people’s compliance with COVID-19 measures (of which they were outright critical) nor the increased racism they encountered contributed significantly. They may have seen people’s behavior as part of the overall force majeure.
Our data have been collected in the COVID-19 context of the Netherlands. It is important to realize that all COVID-19 studies take place in a specific national context, in which the developments over time, the government measures, the COVID-19 communication, and the people may have considerable differences, forming eco-systems that may be hard to generalize to other contexts. Still, the position of Chinese immigrants in Western countries might be largely comparable: despite differences in pandemic response, most Western countries were less strict and less successful than China; racism and discrimination of Asian citizens have been reported in the media of most Western countries, and the antecedents investigated seem to apply as much to other national contexts as they do to the Dutch situation.

4.2. Implications for an Adequate Pandemic Response

Based on our research, three implications for an adequate pandemic response can be discerned. A first implication is that it is important to have a broad view on mental well-being in times of a pandemic, with sufficient attention to a wide range of personal and societal antecedents. The impact a pandemic has on people’s perspectives on life may be large and multifaceted. All antecedents included in our study were confirmed as topics participants thought or worried about, and five of them appeared to have a significant relationship with mental well-being. The pandemic is much more than the virus itself: throughout the pandemic, people try to make sense of a complex and dynamic conglomerate of developments. The perceived immediate and longer-term impact of these developments on their personal lives is what matters to them. Antecedents that are salient in earlier phases of the pandemic (fear of the virus might be such an antecedent) may gradually lose salience, while others may become more salient due to the duration of the pandemic. Distinguishing the personal and societal antecedents of a decrease of mental well-being may help to develop interventions aimed at preventing or solving mental health problems.

A second implication is that the national pandemic response, apart from its instrumental function, also has an expressive function. People monitor the way the pandemic is handled and form opinions about it. Trustworthiness of the government in terms of strategies to combat the virus and openness in its information supply plays a crucial role. Offering a clear and consistent perspective is foundational. This involves an ability to outline and justify the sacrifices that need to be made, to empathize with parties that suffer most from the measures (understanding and willingness to minimize adverse effects), to give clarity about the process and factors that may change the course of action, and to sketch a realistic trajectory out of the pandemic. Multivocality and contradictions can be harmful. Marketing terms like “intelligent lockdown” may have adverse effects. Failures of the government in taking care of its responsibilities can be disastrous. The participants in our research appeared to have serious doubts about the way the Dutch government handled the crisis, and some of these doubts affected their mental well-being and their attitude toward the Netherlands. Of course, it remains to be seen whether this monitoring will be equally important for originally Dutch citizens, who may be less compelled to make comparisons with other countries. However, they are also exposed to the success stories of other countries in the Dutch media on a regular basis, which would make comparable effects on mental well-being plausible.

The third implication specifically applies to the situation of Chinese (or Asian) immigrants in Western countries. Apparently, stigmatization, discrimination, and racism grow easily in times of pandemics. The completely irrational and unreasonable scapegoating of an ethnic minority may be hard to counteract, but it is relatively easy to prevent. In attempts to clean their own house, Western media, politicians, and leaders may have played the blame card too often, emphasizing what went wrong in China in the very beginning but ignoring the many things that were still going wrong in their own countries. Racism will flourish in such a climate. A concerted international pandemic response with critical self-examination and without easy gains in terms of blaming would be desirable in the future.
4.3. Limitations and Suggestions for Future Research

In this study, we managed to administer a comprehensive online questionnaire among a very specific group of participants in the Netherlands, in COVID-19 dominated circumstances that complicated recruitment of participants. Nevertheless, our study generated a number of clear insights regarding antecedents of mental well-being and attitude toward the Netherlands. In interpreting our findings, it is important to keep the following limitations in mind.

A first limitation is that it is a cross-sectional study. We collected at one specific time frame in the pandemic (the last week of November and the first weeks of December 2020). It is important to realize that our data merely reflect a snapshot in a long-lasting process. At that moment, COVID-19 had its second wave in the Netherlands, with infections, hospitalizations, and deaths on the rise. The specific characteristics of the time frame might have effects on the results. Mental well-being, attitude toward the Netherlands, and all antecedents may develop differently over time. Longitudinal research from the very beginning of the pandemic would be preferable, but at that time it was unclear that the pandemic would last so long and there was no comprehensive questionnaire available. Our questionnaire could help to make a kick-start in the event of future pandemics.

A second limitation involves our operationalization of well-being. Given the limitations of a reasonable questionnaire length in combination with the breadth of the antecedents included in our research, we chose to use an overall measure of mental well-being, instead of differentiating between various aspects of well-being. The construct had good psychometric properties and proved to be unidimensional. However, it would be interesting in future research to differentiate between different aspects of well-being. Especially the distinction between hedonic and eudaimonic well-being [64] would be relevant, in relation to the salience of the “lost time” antecedent in our research.

A third limitation involves our sampling method, which boiled down to a convenience sample with some overrepresented and underrepresented background characteristics. Male participants, participants with lower educational levels, and older participants were underrepresented in our sample. This would be particularly problematic if the descriptive results were the main aim of our study, but our focus was more on relationships between variables than on generating a representative descriptive overview. Our findings largely apply to Chinese immigrants who are below 50 years old and who are relatively highly educated. Future research should explore the perspectives of older Chinese immigrants and immigrants with lower levels of education. Regarding gender, our data, although not balanced, offered the possibility to make comparisons between male and female participants and even find significant differences.

A fourth limitation involves our data analysis. Given the relatively small sample size and the lack of previous research to guide more detailed analyses of relations between antecedents, we restricted ourselves to investigating relations between dependent and independent variables and decided against using structural equation modeling in our analysis. For follow-up research, however, it would be interesting to examine relations between all variables more comprehensively and to focus on developing a detailed model. Our correlation analysis could be used to formulate hypotheses for such a model or to inspire more focused studies into the relations between specific antecedents.

A fifth limitation involves our method of data collection. In an online survey, participants’ contributions are limited to moving sliders to the positions that best represented their viewpoints. Quite some participants approached us afterwards via email or WeChat with personal viewpoints and insights that would be worthwhile to explore further. As a follow-up study, we would propose research that delves deeper into participants’ sensemaking processes in times of the pandemic, by means of individual interviews or focus groups.

Author Contributions: X.M. and M.D.T.D.J. designed the study and collected the data; X.M. and M.D.T.D.J. conducted the data analysis, contributed to the rationale and discussion of results, and wrote the report. Both authors have read and agreed to the published version of the manuscript.
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Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the Ethics Committee of the faculty of Behavioral, Management and Social Sciences of the University of Twente (file number 201130, approved on 13 September 2020).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Data is not publicly available, though the data may be made available on request from the corresponding author.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Factor Analysis of the Dependent Variables and Independent Variables in the First Three Layers.

|                      | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
|----------------------|----|----|----|----|----|----|----|----|----|
| **1. Decreased mental well-being** |    |    |    |    |    |    |    |    |    |
| I feel more dissatisfied with life nowadays | 0.82 |    |    |    |    |    |    |    |    |
| I feel less happy nowadays | 0.84 |    |    |    |    |    |    |    |    |
| I feel more cheerless nowadays | 0.84 |    |    |    |    |    |    |    |    |
| I feel less pleased with the way I am nowadays | 0.74 |    |    |    |    |    |    |    |    |
| I feel that life is less enjoyable nowadays | 0.71 |    |    |    |    |    |    |    |    |
| I feel that life is more meaningless nowadays | 0.76 |    |    |    |    |    |    |    |    |
| **2. Attitude toward the Netherlands** |    |    |    |    |    |    |    |    |    |
| My image of the Netherlands has become much positive | 0.86 |    |    |    |    |    |    |    |    |
| My attitude about living in the Netherlands has become more positive | 0.85 |    |    |    |    |    |    |    |    |
| My feelings of attachment to the Netherlands have become stronger | 0.81 |    |    |    |    |    |    |    |    |
| **3. Fear of COVID-19** |    |    |    |    |    |    |    |    |    |
| I find COVID-19 very scary | 0.83 |    |    |    |    |    |    |    |    |
| I worry a lot about contracting COVID-19 | 0.86 |    |    |    |    |    |    |    |    |
| I see COVID-19 as a serious threat to my health | 0.74 |    |    |    |    |    |    |    |    |
| I think about the risks of COVID-19 everyday | 0.51 |    |    |    |    |    |    |    |    |
| The dangers of COVID-19 are generally overestimated | 0.63 |    |    |    |    |    |    |    |    |
| **4. Financial consequences** |    |    |    |    |    |    |    |    |    |
| COVID-19 makes me worry about my financial position in the future | 0.84 |    |    |    |    |    |    |    |    |
| COVID-19 decreases my chances on the job market | 0.85 |    |    |    |    |    |    |    |    |
| I worry about the economic effects COVID-19 will have in the Netherlands | 0.71 |    |    |    |    |    |    |    |    |
| I feel confident that COVID-19 will have no negative effects on my income | 0.66 |    |    |    |    |    |    |    |    |
| **5. Social isolation** |    |    |    |    |    |    |    |    |    |
| Ever since COVID-19, my social life has been very limited | 0.53 |    |    |    |    |    |    |    |    |
| I miss the closeness to other people of the time before COVID-19 | 0.64 |    |    |    |    |    |    |    |    |
| Since COVID-19 I have been living more on my own than before | 0.71 |    |    |    |    |    |    |    |    |
| My social contacts with other people are just as good and pleasant as before | 0.64 |    |    |    |    |    |    |    |    |
| **6. Lost time** |    |    |    |    |    |    |    |    |    |
| COVID-19 has messed up the year 2020 for me | 0.74 |    |    |    |    |    |    |    |    |
| I feel frustrated about the things I could not do due to COVID-19 | 0.69 |    |    |    |    |    |    |    |    |
| I feel I lost valuable time as a result of COVID-19 | 0.73 |    |    |    |    |    |    |    |    |
| I consider 2020 to be a lost year in my life | 0.74 |    |    |    |    |    |    |    |    |
| **7. Missing China** |    |    |    |    |    |    |    |    |    |
| I miss life in China. | 0.81 |    |    |    |    |    |    |    |    |
| I would love to travel to China | 0.89 |    |    |    |    |    |    |    |    |
| I would like to stay in China for some time | 0.51 |    |    |    |    |    |    |    |    |
| I long to spend some time in China. | 0.84 |    |    |    |    |    |    |    |    |
| **8. Perceived travel restrictions to China** |    |    |    |    |    |    |    |    |    |
| COVID-19 has made it almost impossible for me to travel to China this year | 0.88 |    |    |    |    |    |    |    |    |
| It would be very hard for me to travel to China in the coming months | 0.89 |    |    |    |    |    |    |    |    |
| I don’t expect to be able to travel to China soon | 0.85 |    |    |    |    |    |    |    |    |
| **9. Experienced racism** |    |    |    |    |    |    |    |    |    |
| Asian-looking people are now discriminated more than before COVID-19 | 0.81 |    |    |    |    |    |    |    |    |
| COVID-19 led to more racism against Chinese people in the Netherlands | 0.83 |    |    |    |    |    |    |    |    |
| I experience more racism and discrimination than before COVID-19 | 0.80 |    |    |    |    |    |    |    |    |
| People in the Netherlands sometimes seem to blame me for COVID-19 | 0.77 |    |    |    |    |    |    |    |    |
| Percentage of variance explained | 12.2 | 6.8 | 8.1 | 7.2 | 5.2 | 7.7 | 8.6 | 2.4 | 8.1 |
| Cronbach’s alpha | 0.92 | 0.87 | 0.81 | 0.82 | 0.64 | 0.87 | 0.91 | 0.85 | 0.87 |

Note: Factor loadings under 0.40 not included.
## Appendix B

### Table A2. Factor Analysis of the Independent Variables in the Fourth Layer.

| Factor Description                                                                 | 1        | 2        | 3        | 4        | 5        | 6        |
|-----------------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|
| 1. Trust in Dutch government measures                                                                                           |
| I am confident that COVID-19 will end soon in the Netherlands                    | 0.48     |          |          |          |          |          |
| The containment of COVID-19 in the Netherlands is very successful                 | 0.72     |          |          |          |          |          |
| Compared to other countries, the Netherlands does well with COVID-19              | 0.69     |          |          |          |          |          |
| The Dutch government takes COVID-19 seriously                                    | 0.65     |          |          |          |          |          |
| The Dutch government has developed an effective long-term policy to fight COVID-19 | 0.72     |          |          |          |          |          |
| The Dutch government takes the right measures to fight COVID-19                   | 0.72     |          |          |          |          |          |
| The Dutch government shows what a government should do in times of a pandemic    | 0.75     |          |          |          |          |          |
| 2. Trust in Chinese government measures                                                                                         |
| I am confident that COVID-19 will end soon in China                              | 0.57     |          |          |          |          |          |
| The containment of COVID-19 in China is very successful                          | 0.64     |          |          |          |          |          |
| Compared to other countries, China does well with COVID-19                       | 0.75     |          |          |          |          |          |
| The Chinese government takes COVID-19 seriously                                   | 0.71     |          |          |          |          |          |
| The Chinese government has developed an effective long-term policy to fight COVID-19 | 0.77     |          |          |          |          |          |
| The Chinese government takes the right measures to fight COVID-19                 | 0.73     | 0.40     |          |          |          |          |
| The Chinese government shows what a government should do in times of a pandemic  | 0.71     | 0.46     |          |          |          |          |
| 3. Trust in Dutch information and figures                                                                                      |
| People in the Netherlands are given realistic estimations about COVID-19 in the future.                                       | 0.65     |          |          |          |          |          |
| The information about COVID-19 in the Netherlands is reliable                    | 0.78     |          |          |          |          |          |
| The information about COVID-19 in the Netherlands is clear                        | 0.77     |          |          |          |          |          |
| The information about COVID-19 in the Netherlands can be characterized as open and honest | 0.78     |          |          |          |          |          |
| The official Dutch figures about COVID-19 infections, hospitalizations and deaths are trustworthy | 0.84     |          |          |          |          |          |
| The official Dutch COVID-19 figures are accurate                                | 0.79     |          |          |          |          |          |
| The official Dutch COVID-19 figures give a correct impression of the Dutch situation.                                       | 0.79     |          |          |          |          |          |
| 4. Trust in Chinese information and figures                                                                                     |
| People in China are given realistic estimations about COVID-19 in the future.                                                   | 0.77     |          |          |          |          |          |
| The information about COVID-19 in China is reliable                             | 0.85     |          |          |          |          |          |
| The information about COVID-19 in China is clear                                | 0.85     |          |          |          |          |          |
| The information about COVID-19 in China can be characterized as open and honest  | 0.89     |          |          |          |          |          |
| The official Chinese figures about COVID-19 infections, hospitalizations, and deaths are trustworthy | 0.91     |          |          |          |          |          |
| The official Chinese COVID-19 figures are accurate                            | 0.88     |          |          |          |          |          |
| The official Chinese COVID-19 figures give a correct impression of the Dutch situation.                                       | 0.81     |          |          |          |          |          |
| 5. Trust in Dutch people’s compliance with COVID-19 measures                                                                     |
| Dutch citizens do everything they can to fight COVID-19                          | 0.69     |          |          |          |          |          |
| Dutch citizens generally behave in accordance with the Dutch COVID-19 measures  | 0.74     |          |          |          |          |          |
| Dutch citizens take COVID-19 seriously                                          | 0.75     |          |          |          |          |          |
| 6. Trust in Chinese people’s compliance with COVID-19 measures                                                                 |
| Chinese citizens (in China) do everything they can to fight COVID-19             | 0.75     |          |          |          |          |          |
| Chinese citizens (in China) generally behave in accordance with the Chinese COVID-19 measures | 0.78     |          |          |          |          |          |
| Chinese citizens (in China) take COVID-19 seriously                            | 0.79     |          |          |          |          |          |
| Percentage of variance explained                                                | 14.2     | 18.4     | 11.6     | 13.0     | 6.4      | 7.1      |
| Cronbach’s alpha                                                               | 0.92     | 0.96     | 0.86     | 0.91     | 0.80     | 0.87     |

*Note:* Factor loadings under 0.40 not included.
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