

# The experience of individuals placed in quarantine: A systematic review, meta-summary, and meta-synthesis

Martina Basso BSN, RN | Erica Visintini BSN, RN | Illarj Achil MNS, BSN |  
Stefano Fabris MNS, BSN | Elisa Mattiussi MNS, BSN | Matteo Danielis PhDs, MNS, BSN |  
Alvisa Palese PhD, MSc, BSN, RN 

Department of Medical Sciences, University of Udine, Udine, Italy

## Correspondence

Alvisa Palese, School of Nursing, Udine, Viale Ungheria, 20, 33100 Udine, Italy.  
Email: [alvisa.palese@uniud.it](mailto:alvisa.palese@uniud.it)

## Funding information

Not applicable.

## Abstract

**Objective:** To summarize the experience of individuals placed in quarantine during an outbreak.

**Design:** A meta-summary and a meta-synthesis based upon a systematic review of qualitative studies.

**Sample:** The Cumulative Index of Nursing and Allied Health Literature, MEDLINE, and Scopus databases were all searched up to April 2020.

**Measurements:** The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines were followed; then, the methodological quality of the studies included was assessed with the Critical Appraisal Screening Programme tool for qualitative studies.

**Results:** Five studies have been included documenting the experience of 125 adult individuals. A total of 16 codes emerged: in the meta-summary, the most and least frequent codes were "Thinking about quarantine" (80%) and "Emotional roller coaster," "Being alert for any symptom," "Trusting or not?," "Knowing who brought the infection," and "Living in a surreal world" (20%). The codes which emerged were categorized into three main themes which summarized the whole experience of being placed in quarantine: (a) "Being swamped with a thousand emotions"; (b) "Being restrained"; and (c) "Needing to be considered."

**Conclusions:** The experience of quarantine for people is a long journey which can feel chaotic due to uncertainty about the consequences on health, work, and the future. The findings of this study can help nurses in caring for quarantined individuals by enabling them to understand people's need for educational and emotional support. Ensuring the supply of consistent information is also important to increase people's compliance.

## KEYWORDS

meta-summary, meta-synthesis, public health, qualitative research, quarantine

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited and is not used for commercial purposes.

© 2021 The Authors. *Public Health Nursing* published by Wiley Periodicals LLC.

## 1 | INTRODUCTION

With the increased number of cases of COVID-19, reaching 125,160,255 confirmed cases and 2,748,737 deaths around the world on the 27 March 2021 (WHO, 2020b), nurses should expect a continuing increase of individuals placed in quarantine due to their exposure. However, while people's experiences of prolonged isolation both for specific health care procedures (e.g., Lee et al., 2011) and for pandemics (e.g., Shaban et al., 2020) have been explored over the years, despite the widespread implementation of quarantine in the recent COVID-19 outbreak (including entire cities), no summary of qualitative studies has been undertaken to date to discover the individual experience of living in the community. The rapid review recently published (Brooks et al., 2020) summarizing studies, including large samples of participants, based on qualitative, cross-sectional, and mixed methods, regarded the psychological impact of quarantine and factors mitigating these effects at public health levels. However, in order to tailor the care of individual placed in quarantine, nurses need to be supported by evidence regarding the individual experience during quarantine: although the physical and psychological consequences can be less pronounced given that quarantined individuals are healthy (Cava et al., 2005a), they are in need of individualized care. Therefore, the aim of this study is to summarize experiences of individuals placed in quarantine as explored through qualitative studies.

### 1.1 | Background

Quarantine is an old public health care measure whose appearance in scientific debate has been traced back to 1807 (Alder, 1807). However, it was used much earlier, for instance, in Venice, Italy, in 1,127 as an attempt to prevent the spread of leprosy (Brooks et al., 2020). Quarantine has been defined as "...the restriction of activities and/or separation from others of suspected persons not ill... as to prevent the possible spread of the infection or contamination" (World Health Organization, 2016).

The word "quarantine" is derived from *quaranta*, referring to the 40-day segregation of ships during the plague (Sehdev, 2002). "Quarantine" and "isolation" are often used as synonyms but they differ in the meaning: isolation, rather than quarantine, implies the separation of individuals with symptoms (=those who are already ill) from healthy people (Barbisch et al., 2015).

Over the centuries, the quarantine preventive practice has spread across Europe and all over the world, becoming an authorized intervention. However, with the advancement of antibiotics and antivirals at the end of 20th century which allow the treatment of ill people preventing the spread of infections (Rothstein, 2015), this nonpharmacological intervention has been less used. Nevertheless, with the appearance of the Severe Acute Respiratory Syndrome (SARS), the Hemagglutinin Type 1 and Neuraminidase Type 1 (H1N1), Ebola, and, currently, during the Coronavirus Disease 2019 (COVID-19) pandemic, its implementation has been worldwide (Orset, 2018; WHO, 2020a).

The consequences of both isolation and quarantine have been reported at the individual, family, and social levels. Mental health disorders, including symptoms of posttraumatic stress disorders, depression, insomnia, confusion, and anger, with emotional responses such as fear, nervousness, sadness, and guilt (e.g., Brooks et al., 2020) have been documented. At the family level, there have been increased occurrences of violent episodes (Humphreys et al., 2020); and at the societal level, negative economic impacts have been reported (Blendon et al., 2004; Chu et al., 2020; Rothstein, 2015). Moreover, ethical and social issues such as the violation of civil freedom and rights have also been discussed (Barbisch et al., 2015; Day et al., 2006).

## 2 | METHODS

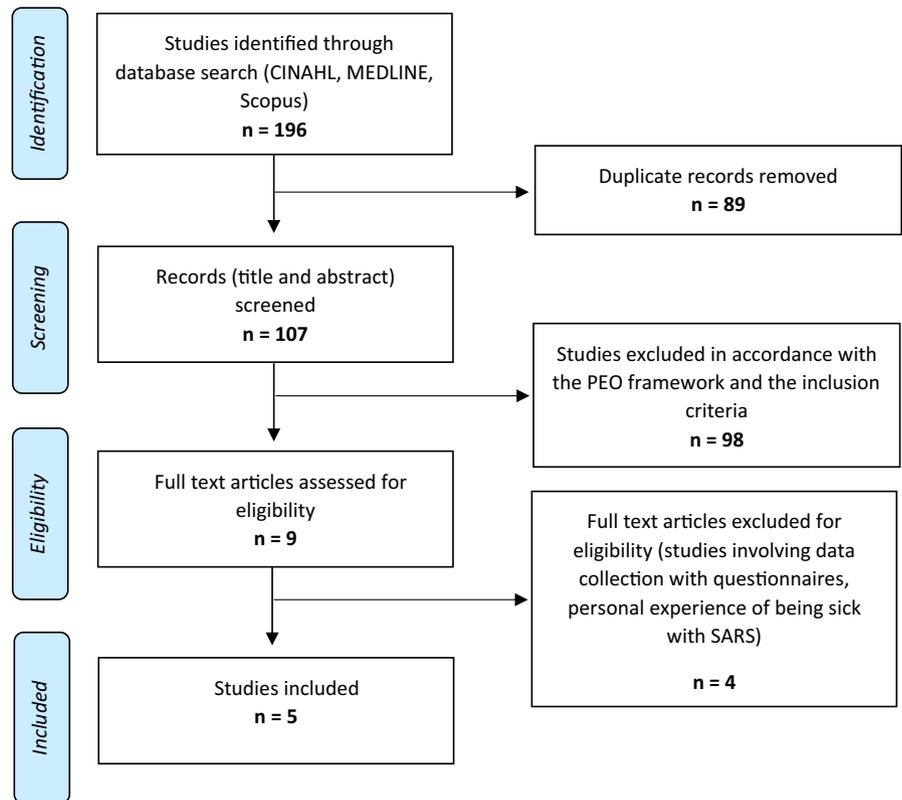
### 2.1 | Study design

In accordance with the Population, Exposure, and Outcome (PEO) framework (Bettany-Saltikov, 2012), the research question was as follows: "What is the experience of individuals placed in quarantine during an epidemic/pandemic?" Firstly, a systematic review (Liberati et al., 2009) of qualitative studies was performed by following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement, then a meta-summary and meta-synthesis (Sandelowski & Barroso, 2006) of the included studies were conducted.

### 2.2 | Searching for and retrieving literature

Two researchers independently conducted a systematic search of the eligible studies up to April 2020 by accessing three databases, namely the Cumulative Index of Nursing and Allied Health Literature (CINAHL), MEDLINE, and Scopus. The references of the studies included were also checked manually and one researcher supervised the entire process and independently performed the search by achieving the same outcomes. The following search terms were identified: "Epidemics," "Pandemics," "Communicable disease," "Quarantine," "Qualitative Research," "Perception," "Patient Experience," and "Home Confinement" combined with the Boolean operator (AND). There were included primary studies: (a) based upon qualitative designs; (b) aimed at exploring the subjective experiences of adult people (>18 years old) placed in quarantine during an epidemic/pandemic; and (c) written in English and with an abstract available. Studies were excluded when they (a) did not report the experiences of individuals placed in quarantine (e.g., those regarding isolated people); (b) concerned groups of health care workers (e.g., DiGiovanni et al., 2004) or entire communities (e.g., Lee et al., 2005); (c) involved mixed methods, singular case (e.g., Caleo et al., 2018), or quantitative studies (e.g., Braunack-Mayer et al., 2013); (d) analyzed the phenomenon at the social level (e.g., Pellecchia et al., 2015), or (e) concerned the pediatric population (age <18 years; Figure 1).

**FIGURE 1** Flow diagram for research strategy and study selection and inclusion (PRISMA Statement, Liberati et al., 2009). Abbreviations: CINAHL: Cumulative Index of Nursing and Allied Health Literature, *n*: number, PEO: Population, Exposure, Outcome, PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses, SARS: Severe Acute Respiratory Syndrome



### 2.3 | Quality appraisal

The Critical Appraisal Screening Programme (CASP, 2018) for qualitative studies was used to evaluate the methodological quality of the included studies articles. The tool is aimed at evaluating the quality of 10 methodological domains and each is reflected in an item that can be scored as “Yes” (Y), “No” (N), or “Cannot tell” (U), depending on whether they have been described appropriately in the full text of the article (CASP, 2018): higher scores indicate a high study quality. Researchers agreed to consider all studies resulting in low (CASP 0–5.5), medium (CASP 6–8.5), and high (CASP 9–10) levels of quality according to the total scores obtained. The appraisal was conducted by two researchers independently (Table S1) and then the findings were agreed upon.

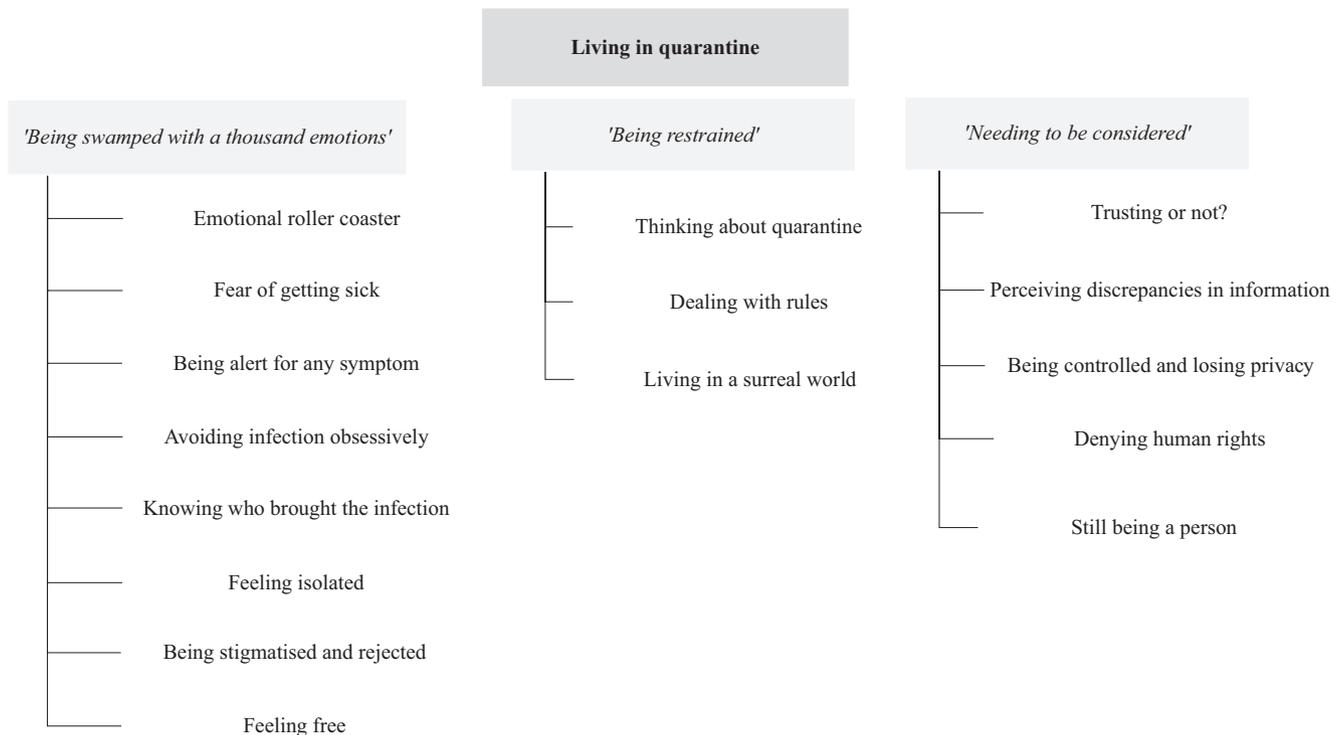
### 2.4 | Data extraction, analysis, synthesis, and integration of findings

Each study was read carefully and then the following data were extracted: (a) author(s), (b) year of publication, (c) country, (d) aims, (e) disease, (f) study design approach and year of data collection, (g) participants, (h) duration of quarantine, (i) methods of data collection, and (j) main findings. In extracting the findings, only those related to the quarantine were selected: therefore, those aspects related to diseases, for example, experienced by health care workers involved in the study (e.g., Desclaux et al., 2017) were not considered.

An inductive analysis was performed (Sandelowski & Barroso, 2006): specifically, study findings were initially extracted and separated from other elements of the study; then, the extracted findings were edited and categorized in a common domain. Thus, the codes were merged, abstracting the findings, and then the manifest frequency and intensity effect size were calculated. In the process of the categorization of codes, the following approaches were used (Table S2): replication or confirmation, extension, or refuting each other on the basis of similarities (Sandelowski & Barroso, 2006):

- confirmation was used when extracted elements of each study were similar to elements extracted from another study;
- extension was used when elements extracted were focused on other aspects that those already confirmed, emphasizing different perspectives, thus completing the former aspect; and
- difference/sameness was used when elements extracted were different or when they were the same.

Frequency was computed by taking the number of studies containing a code and dividing this number by the total number of studies. Intensity was derived by dividing the number of codes contained in that study by the total number of findings across all studies (Onwuegbuzie, 2003). Following this, a conceptual diagram (Figure 2) representing the experience during quarantine was developed.



**FIGURE 2** The individual experience of being quarantined during an epidemic: Themes and codes

### 3 | RESULTS

#### 3.1 | Studies included

A total of five studies emerged (Table S3), reporting the experience of 125 people, given that the study of Cava et al. (2005a, 2005b) involved the same population. Those involved, as reported, ranged from 18 years old (Cava et al., 2005a, 2005b; Lin et al., 2010) to 65 years old (Cava et al., 2005a, 2005b; Lin et al., 2010) and they were mainly women (55.3%; Cava et al., 2005a, 2005b; Lin et al., 2010). Three studies analyze individual experience during a SARS epidemic in Toronto and Taiwan (Cava et al., 2005a, 2005b; Lin et al., 2010), one during an Ebola epidemic in Senegal (Desclaux et al., 2017), and one during an influenza epidemic in three Canadian regions (Smith et al., 2012). The duration of the quarantine ranged from 2 hr to 21 days (Desclaux et al., 2017; Lin et al., 2010).

Data were collected mainly by using semi-structured interviews and only one study used focus groups (Smith et al., 2012). Based on the CASP evaluation, all studies demonstrated a high quality of methodologies (all total scores  $\geq 8.5$ ), with item no. 6, "Has the relationship between researchers and participants been adequately considered?," more often than not reported (e.g., Cava et al., 2005a, 2005b).

#### 3.2 | Meta-summary

A total of 16 codes emerged: the study developed by Cava et al. (2005a) reported the highest code intensity (62.5%) while

that of Smith et al. (2012) the lowest (18.8%), as shown in Table 1. Moreover, the most frequent code across studies was "Thinking about quarantine" (80%) followed by "Being stigmatised and rejected," "Fear of getting sick," and "Dealing with rules" (60%), as reported in Table 2. Conversely, the least frequent codes were "Emotional roller coaster," "Being alert for any symptom," "Trusting or not?," "Knowing who brought the infection," and "Living in a surreal world" (20%).

#### 3.3 | Meta-synthesis

As reported in Figure 2, the 16 codes that emerged were categorized into three themes, namely: (1) "Being swamped with a thousand emotions"; (2) "Being constrained"; and (3) "Needing to be considered."

##### Theme 1: "Being swamped with a thousand emotions"

Being in quarantine causes a whirlwind of emotions in individuals and is often described as "an emotional roller coaster": suddenly receiving the direction to be put in quarantine gives people a "scary feeling" (Cava et al., 2005a). As the days pass, the initial shock evolves into anger: "I was very angry about waiting" (Lin et al., 2010), mainly due to the restrictions imposed. Spending days away from everyone is difficult, triggering feelings of being "lonely and scared" (Lin et al., 2010), although quarantine represents a period of great reflection, in which the fear of getting sick is predominant: as a consequence, obsessive thoughts emerge, described as "being alert for any symptom" (Desclaux et al., 2017) and the anguish of being infected leads to avoiding infection obsessively: "I doubted whether the beds or chairs were completely

**TABLE 1** Meta-summary according to Onwuegbuzie (2003): Code intensity in the included studies

Studies	Categories (n = 16)	Intensity (%)
Cava et al. (2005a)	<ul style="list-style-type: none"> <li>• Being stigmatized and rejected</li> <li>• Fear of getting sick</li> <li>• Emotional roller coaster</li> <li>• Feeling isolated</li> <li>• Knowing who brought the infection</li> <li>• Avoiding infection obsessively</li> <li>• Feeling free</li> <li>• Perceiving discrepancies in the information</li> <li>• Denying human rights</li> <li>• Being controlled and losing privacy</li> </ul>	62.5
Cava et al. (2005b)	<ul style="list-style-type: none"> <li>• Fear of getting sick</li> <li>• Avoiding infection obsessively</li> <li>• Thinking about quarantine</li> <li>• Dealing with rules</li> <li>• Living in a surreal world</li> <li>• Trusting or not?</li> <li>• Perceiving discrepancies in the information</li> </ul>	43.8
Lin et al. (2010)	<ul style="list-style-type: none"> <li>• Being stigmatized and rejected</li> <li>• Fear of getting sick</li> <li>• Feeling isolated</li> <li>• Feeling free</li> <li>• Thinking about quarantine</li> <li>• Still being a person</li> <li>• Denying human rights</li> </ul>	43.8
Desclaux et al. (2017)	<ul style="list-style-type: none"> <li>• Being alert for any symptom</li> <li>• Being stigmatized and rejected</li> <li>• Feeling isolated</li> <li>• Thinking about quarantine</li> <li>• Dealing with rules</li> <li>• Being controlled and losing privacy</li> </ul>	37.5
Smith et al. (2012)	<ul style="list-style-type: none"> <li>• Thinking about quarantine</li> <li>• Dealing with rules</li> <li>• Still being a person</li> </ul>	18.8

decontaminated" (Lin et al., 2010). To avoid possible infection, people adopt all the possible protective behavior, such as meticulously cleaning every surface (Cava et al., 2005b) and becoming even more scrupulous in wearing personal protective equipment: "I felt more secure wearing the mask and gloves than I did before. I kind of felt there was a wall around me. I liked that, it made me feel more at ease when I went back to work knowing I'd be wearing everything" (Cava et al., 2005a). In this phase, in an attempt to know who brought the infection, individuals try to reconstruct the events of the last days to find out who is the first source of the infection (Cava et al., 2005a).

Alongside the fear of contagion, people in quarantine experience a profound feeling of isolation. However, this is experienced in an ambivalent way: both as a negative period but also as a moment of freedom (Desclaux et al., 2017). Parents have been reported to experience the greatest difficulty, as they have to stay away from their children: "There's a one-year-old child at my house who is attached to me, but I had to run away from him" (Desclaux et al., 2017). The ability to keep in touch with other loved ones is essential and represents a way to prevent anxiety, even if the physical distance is still emotionally onerous (Lin et al., 2010).

Individuals also feel strongly stigmatized by others, especially when they return to their social life: "I haven't worked because during this whole time, they looked at you a certain way because they all knew that I was among those who were held, so it's not been easy, you know" (Desclaux et al., 2017): for this reason, individuals tend to isolate themselves again from others (Cava et al., 2005a). Among the consequences of feeling stigmatized, individuals develop a sense of guilt as a result of the psychological pressure to which they have been exposed: "You don't know if you're going to be blamed" (Cava et al., 2005a). The looks of disapproval by fellow villagers are very difficult psychologically: individuals feel embarrassed, pointing the finger at themselves with horror and guilt for infecting other people: "They [nearby people] always looked toward us from outside. It [their expressions] seemed [to indicate that] we were so horrible because we could infect them. I felt so embarrassed in this area, even though the door was half covered by a dark curtain" (Lin et al., 2010). The conclusion of the quarantine period inevitably represents a great liberation and a sense of freedom, lived with relief: "[T]his must be what it feels like when you're on death row, and the governor gives you a reprieve" (Cava et al., 2005a).

**TABLE 2** Meta-summary of codes according to Onwuegbuzie (2003): Frequency across studies

Codes	Studies (n = 5)	Frequency (%)
Thinking about quarantine	<ul style="list-style-type: none"> <li>• Cava et al. (2005b)</li> <li>• Smith et al. (2012)</li> <li>• Lin et al. (2010)</li> <li>• Desclaux et al. (2017)</li> </ul>	80
Being stigmatised and rejected	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Lin et al. (2010)</li> <li>• Desclaux et al. (2017)</li> </ul>	60
Dealing with rules	<ul style="list-style-type: none"> <li>• Cava et al. (2005b)</li> <li>• Smith et al. (2012)</li> <li>• Desclaux et al. (2017)</li> </ul>	60
Fear of getting sick	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Cava et al. (2005b)</li> <li>• Lin et al. (2010)</li> </ul>	60
Feeling isolated	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Lin et al. (2010)</li> <li>• Desclaux et al. (2017)</li> </ul>	60
Avoiding infection obsessively	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Cava et al. (2005b)</li> </ul>	40
Being controlled and losing privacy	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Desclaux et al. (2017)</li> </ul>	40
Perceiving discrepancies in information	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Cava et al. (2005b)</li> </ul>	40
Still being a person	<ul style="list-style-type: none"> <li>• Smith et al. (2012)</li> <li>• Lin et al. (2010)</li> </ul>	40
Denying human rights	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Lin et al. (2010)</li> </ul>	40
Feeling free	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> <li>• Lin et al. (2010)</li> </ul>	40
Living in a surreal world	<ul style="list-style-type: none"> <li>• Cava et al. (2005b)</li> </ul>	20
Knowing who brought the infection	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> </ul>	20
Trusting or not?	<ul style="list-style-type: none"> <li>• Cava et al. (2005b)</li> </ul>	20
Being alert for any symptom	<ul style="list-style-type: none"> <li>• Desclaux et al. (2017)</li> </ul>	20
Emotional roller coaster	<ul style="list-style-type: none"> <li>• Cava et al. (2005a)</li> </ul>	20

### Theme 2: "Being restrained"

This theme summarized the difficulties that individuals encounter during the quarantine and its meaning. While *thinking about quarantine*, individuals believe that political decisions made by the country to prevent infection diffusion must necessarily support them and must be balanced between the individual and the community's rights (Smith et al., 2012). In fact, the rules imposed are often very strict and difficult to accept, especially when they affect a typical cultural practice, such as "*Enter home without sitting down or shaking hands*" (Desclaux et al., 2017). Respecting the rules is therefore very difficult, also due to the contradictory information spread by media (Smith et al., 2012): for example, the use of PPE is often rejected: "*While we were on quarantine,*

*we were supposed to use masks, and we did not. The masks that we were given were not tenable. They were not comfortable, and we came to the conclusion that we would comply in every other way, but not wear the masks*" (Cava et al., 2005b).

Concerns and awareness regarding the risk of economic sanctions further convince people to respect the quarantine rules: "[I]f they find out you were gone it's like \$5,000 from you ... We won't take the risk" (Cava et al., 2005b). In fact, those who have understood the importance of the quarantine accept it and support its effectiveness: "*The quarantine policy is very important for SARS prevention. It could screen for high-risk populations and provide us an outside isolated room for examinations and observations, thus decreasing the SARS epidemic in the hospital. So, I was willing to accept that*" (Lin et al., 2010). However, the prevailing perception is that of living in a surreal situation, as having "*...all that control taken away*" (Cava et al., 2005b).

### Theme 3: "Needing to be considered"

This theme expresses the people's need to feel considered as human beings and addresses the reasons leading individuals to transgress the prescription of quarantine: *trusting or not* is the main question given that institutional messages often conflict with each other and seem chaotic: "*I felt as if I was getting mixed messages*" (Cava et al., 2005a). For example, individuals wonder why others in the same condition as them are not being placed in quarantine: "*They told us that I had to be quarantined. But it didn't make sense because my roommate didn't have to be quarantined as well because ... if I had the virus then most likely she had it as well. So, it would only make sense to quarantine both of us*" (Cava et al., 2005b). On the other hand, people find it difficult to obtain the correct information among the huge amount of news circulating: they observed that they "*Had to shift through the news to get the actual hard facts*" (Cava et al., 2005b). For these reasons, people are wary of the news, even doubting the validity of the quarantine: "*This is going to protect my family from SARS? I don't know...*" (Cava et al., 2005b). Therefore, individuals perceived several *discrepancies in the received information* which was circulating through the media.

The harsh rules imposed make individuals feel strictly controlled; they complain of a loss of privacy and a denial of individual freedom in which even fundamental rights are perceived to be denied. However, not everyone experiences this situation negatively: in fact, someone did not feel that being monitored was a problem (Desclaux et al., 2017), and even felt that it was being taken care of (Cava et al., 2005a).

There is therefore a desire to be *considered as a person*, and not as risky individuals. For quarantined individuals, it is important above all to feel taken care of as a person; however, they understand the difficulties of working as health care professionals facing an epidemic and, for this reason, they tolerate the situation (Lin et al., 2010). The lack of empathy and attention felt by people are aspects that they want to report: "*They took me to that quarantine room, only asked me to lie down on the bed, and not to go outside except to the toilet by following the yellow line on the floor. You never knew about the next step and how long you would wait*" (Lin et al., 2010). Participants believe

that it is necessary for institutions not to forget the human factor, especially when laws are enacted that limit individual freedoms: “You just want to be cognizant of the human factor of the people involved and just the emotional impact that [restrictive measures have] on individual's lives” (Smith et al., 2012).

## 4 | DISCUSSION

### 4.1 | Studies included

A total of five qualitative studies have been performed to date, mainly in Canada (Cava et al., 2005a, 2005b; Smith et al., 2012). The first was published in 2005 (Cava et al., 2005a, 2005b) after the outbreak of the SARS epidemic; the last was published in 2017 (Desclaux et al., 2017) and concerned the Ebola Virus Disease (EVD), suggesting that to date not a great deal of attention has been paid to the subjective experience of people in quarantine. The participants involved were placed in quarantine for different diseases (SARS, EVD, and influenza) and durations: this might have affected their lived experience also according to the different risks associated with the diseases, as the fatality rate has been reported to reach around 50% in the case of EVD (WHO, 2020c).

Based on the CASP tool (CASP, 2018), the quality of the studies was high for the majority of criteria. However, future studies are encouraged to report more data regarding the duration of the quarantine and where and when participants have been interviewed, given that these elements have been largely missed in available studies.

### 4.2 | Meta-summary

A few studies have been included and this might explain why one of them (Cava et al., 2005a) provided the highest intensity of codes and one (Smith et al., 2012) the lowest, while the remaining (Cava et al., 2005b; Desclaux et al., 2017; Lin et al., 2010) reported a medium code intensity. The most frequent code (which reached 80%) was “Thinking about quarantine,” followed by “Being stigmatised and rejected,” “Living in fear of getting sick,” and “Dealing with rules” (60%), suggesting that individuals living in quarantine find themselves in a moment of profound reflection, which leads them to think not only about their own health condition but also about the validity of the quarantine itself. Moreover, stigma and fear seem to be the first psychological outcomes that might increase the difficulty in respecting rules, suggesting that these individuals are in need of substantial support not only during the quarantine but also at its end when the stigma might continue.

### 4.3 | Meta-synthesis

The experience of individuals placed in quarantine can be summarized around three themes: the first “Being swamped with a thousand

emotions” is characterized by mainly an internal process based upon emotions reflecting the feelings experienced during the quarantine: thousands of emotions follow each other relentlessly, and individuals are terrified by the fear of getting sick, which forces them to monitor every single symptom and to implement all possible precautions to avoid infection. In the attempt to establish the source of the potential infection, individuals feel themselves isolated, stigmatized, and rejected. The possible psychological implications of quarantine have already been documented (Brooks et al., 2020). Moreover, similar stigma has been reported by individuals affected by tuberculosis, cancer, diabetes, leprosy, and substance abuse (Nyblade et al., 2019) as well as in the context of the COVID-19 outbreak (Chopra & Arora, 2020). Loneliness and social isolation might trigger depression, cognitive decline, and unhealthy lifestyles (Smith & Lim, 2020), which is more pronounced among those with underlying psychological issues, such as obsessive-compulsive disorders (Prestia et al., 2020). Therefore, individuals placed in quarantine are in need of continuous nursing assessment and support. At the end of the period, they experience a liberating moment, in which they can finally breathe freedom: however, given that the stigma might continue among frailer individuals, continuing support is suggested.

The second theme, “Being constrained,” mainly expresses the relationship between the individual and the quarantine prescriptions imposed by the country: opinions about the quarantine, and the difficulties of living with new rules in a completely shocking and surreal reality were the main issues which emerged. Individuals seem to attribute the quarantine to a political decision, instead of a public health intervention mediated by laws; the disruption of cultural rules increased the difficulties of coping with the prescriptions received. People of African origin (Desclaux et al., 2017) expressed anger and discomfort toward the new regulations that put aside their history and their beliefs, such as the burial of loved ones, an aspect not reported by people of Canadian and Taiwanese origin (Cava et al., 2005a, 2005b; Lin et al., 2010), and only briefly by Smith et al. (2012). Also, during the COVID-19 outbreak, similar issues have emerged mainly with regards to funeral rituals (Eisma et al., 2020; Marsili, 2020), which might have increased the risk of dysfunctional bereavement. Moreover, the information received by media regarding the rules to follow while in quarantine is not always consistent with those received by professionals, thus increasing the confusion. However, while confirming the importance of quarantine, participants ask themselves what its limits are and focus on the reactions (Smith et al., 2012). According to Giubilini et al. (2018), quarantine can be considered justifiable when the outbreak of an epidemic threatens public health and when people's basic needs are respected by the state. It is also important that the costs resulting from this choice can be tolerated by individuals who must comply with the provisions, while the state is able to work with the means and aids to support people (Giubilini et al., 2018). Canadian individuals (Cava et al., 2005b) reported that their governments have imposed fines to be paid, demonstrating that both in more developed countries and in those characterized by political instability and precarious rights there is the same predisposition to impose fines with

the aim of enforcing the rules. Therefore, how to effectively increase compliance with quarantine restrictions by involving individuals in an acceptance of the prescriptions according to individual and community interest should be investigated in order to prevent forms of punishment.

The third theme which emerged mainly expresses the relationship between the individual and the health care professional and institutions and can be summarized as a plea of “*Needing to be considered*”. Firstly, the doubt regarding the truthfulness of the information received arises initially from perceiving discrepancies in the institutional messages, and for this reason, individuals ask themselves whether to trust or not. Even during the COVID-19 pandemic, a great diffusion of misinformation and infodemic attitudes emerged: discrepancies might influence compliance with the quarantine prescription and therefore should be countered by health care professionals (Rovetta & Bhagavathula, 2020). People reported that they are being controlled and their privacy as a fundamental right denied. Also, during the COVID-19 pandemic, examples of these perceptions have been reported, as in the case of South Korea where an advanced information technology system has been extensively utilized for tracing individuals suspected of being infected or who had been in contact with an infected person. Collected data was important for epidemiological investigations, but also included personal data not relevant, thus threatening the right of privacy. Individuals complained of an unwanted invasion of privacy and stigmatization: businesses visited by infected people often suffered a sudden loss of work (Park et al., 2020).

Individual rights have been reported as being denied and are perceived to be controlled. Also in the current COVID-19 pandemic, the denial of human rights has been documented mostly among individuals with mental disorders, older people, and their caregivers, as well as the most marginalized such as the homeless, migrants, and prisoners (Colizzi et al., 2020; Dubey et al., 2020). Moreover, the loss of the right to education for children and adolescents has also been highlighted (Dubey et al., 2020; Munro & Faust, 2020) as well as the right to access health care systems for non-COVID-19 clinical issues (De Rosa et al., 2020). At the individual level, individuals placed in quarantine vociferously call to be considered as people: nurses might play a great role (e.g., AA.VV., 2018; Caicedo et al., 2020) in ensuring this right, especially when integrated in the community (Longhini et al., 2019).

#### 4.4 | Limitations

We have included studies conducted in different countries with different cultures that might have affected the interpretation of the quarantine experience, from the perspective of participants, that of researchers of the primary studies, and ours in the extraction and categorization of the findings. Moreover, different qualitative study approaches and data collection methods have been used in the primary studies included, and this might also have influenced the meta-summary and the synthesis of the findings. We

have adopted a systematic approach to detect all possible studies; however, some of them might have been missed. Furthermore, studies regarding the quarantine experience of health care workers have not been considered in our study, suggesting that in this field future studies should be undertaken. Additionally, given that a few studies have been retrieved, we have summarized them regardless of the possible diverse influence of the diseases on the experience (e.g., SARS vs. influenza). Therefore, future studies are encouraged to be undertaken with a subgroup analysis by including homogeneous groups of individuals placed in quarantine for the same disease.

#### 4.5 | Implications for practice

During an important pandemic that is experienced worldwide, more priority is given to isolated individuals who are already ill compared to those placed in quarantine: however, even among those in quarantine, educational and emotional needs should be addressed. In this context, nurses who care for quarantined individuals must consider their educational and emotional support needs. Individuals in quarantine need to find a sense of internal and external coherence that is difficult to achieve due to the inconsistent information they receive; therefore, ensuring consistent information is important to increase adherence toward the prescribed public health measure. Using tools capable of assessing the risk of nonadherence to the quarantine measure, as well as assessing the risk of consequences to the quarantine, can support nurses to priorities individuals with greater vulnerability.

Despite the use of quarantine measures in recent outbreaks, little research has been carried out on this population, suggesting that more efforts need to be made in the future. When the health system is facing large proportions of quarantined individuals—such as during the COVID-19 pandemic—it is difficult to conduct research. However, without research it is difficult to base caring interventions on evidence.

### 5 | CONCLUSIONS

Few qualitative studies which adopt good- to high-quality methodological approaches have been performed to date with the intent of combining the experience of individuals in quarantine. According to the findings, the experience of people in quarantine is comparable to a long journey, marked by fundamental stages, some ugly, which are difficult to overcome and which require a high price to pay, as individuals are hampered by both internal fragility and external impediments. This journey follows a long timeline, which starts with shock and ends with the feeling of freedom, and where individuals call to be considered as human beings.

#### ACKNOWLEDGMENTS

None.

## CONFLICT OF INTEREST

None.

## AUTHOR CONTRIBUTIONS

All authors were involved in drafting the article or revising it critically for important intellectual content, and all authors approved the final version to be submitted for publication.

## DATA AVAILABILITY STATEMENT

Data sharing not applicable – no new data generated.

## ORCID

Alvisa Palese  <https://orcid.org/0000-0002-3508-844X>

## REFERENCES

- AA.VV. (2018). Nurses and the National Health Service. *Assistenza Infermieristica e Ricerca*, 37(4), 202–211. <https://doi.org/10.1702/3080.30725>
- Alder, T. (1807). Dr. Alder, on quarantines, contagion, and fever. *The Medical and Physical Journal*, 18(106), 497–500.
- Barbisch, D., Koenig, K. L., & Shih, F. Y. (2015). Is there a case for quarantine? Perspectives from SARS to Ebola. *Disaster Medicine and Public Health Preparedness*, 9(5), 547–553. <https://doi.org/10.1017/dmp.2015.38>
- Bettany-Saltikov, J. (2012). *How to do a systematic literature review in nursing: A step-by-step guide*. McGraw-Hill Education (UK).
- Blendon, R. J., Benson, J. M., DesRoches, C. M., Raleigh, E., & Taylor-Clark, K. (2004). The public's response to severe acute respiratory syndrome in Toronto and the United States. *Clinical Infectious Diseases*, 38(7), 925–931. <https://doi.org/10.1086/382355>
- Braunack-Mayer, A., Tooher, R., Collins, J. E., Street, J. M., & Marshall, H. (2013). Understanding the school community's response to school closures during the H1N1 2009 influenza pandemic. *BMC Public Health*, 13(1), 344. <https://doi.org/10.1186/1471-2458-13-344>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 395, 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Caicedo, C., Anselmi, M., Prandi, R., Márquez, M., Buonfrate, B. D., Gobbi, F., Bisoffi, Z., & Tognoni, G. (2020). The community health promoters as protagonist actors of primary health care and community empowerment: a long-term field-report from 1980 to 2018. *Assistenza Infermieristica E Ricerca*, 39(1), 47–56. <https://doi.org/10.1702/3371.33476>
- Caleo, G., Duncombe, J., Jephcott, F., Lokuge, K., Mills, C., Looijen, E., Theoharaki, F., Kremer, R., Kleijer, K., Squire, J., Lamin, M., Stringer, B., Weiss, H. A., Culli, D., Di Tanna, G. L., & Greig, J. (2018). The factors affecting household transmission dynamics and community compliance with Ebola control measures: A mixed-methods study in a rural village in Sierra Leone. *BMC Public Health*, 18(1), 1–13. <https://doi.org/10.1186/s12889-018-5158-6>
- Cava, M. A., Fay, K. E., Beanlands, H. J., McCay, E. A., & Wignall, R. (2005a). The experience of quarantine for individuals affected by SARS in Toronto. *Public Health Nursing*, 22(5), 398–406. <https://doi.org/10.1111/j.0737-1209.2005.220504.x>
- Cava, M. A., Fay, K. E., Beanlands, H. J., McCay, E. A., & Wignall, R. (2005b). Risk perception and compliance with quarantine during the SARS outbreak. *Journal of Nursing Scholarship*, 37(4), 343–347. <https://doi.org/10.1111/j.1547-5069.2005.00059.x>
- Chopra, K. K., & Arora, V. K. (2020). Covid-19 and social stigma: Role of scientific community. *The Indian Journal of Tuberculosis*, 67(3), 284–285. <https://doi.org/10.1016/j.ijtb.2020.07.012>
- Chu, I. Y. H., Alam, P., Larson, H. J., & Lin, L. (2020). Social consequences of mass quarantine during epidemics: A systematic review with implications for the COVID-19 response. *Journal of Travel Medicine*, 27(7), taaa192. <https://doi.org/10.1093/jtm/taaa192>
- Colizzi, M., Sironi, E., Antonini, F., Ciceri, M. L., Bovo, C., & Zocante, L. (2020). Psychosocial and behavioral impact of COVID-19 in autism spectrum disorder: An online parent survey. *Brain Sciences*, 10(6), 341. <https://doi.org/10.3390/brainsci10060341>
- Critical Appraisal Skills Programme (CASP). (2018). *CASP qualitative checklist for qualitative research*. Retrieved from <https://casp-uk.net/casp-tools-checklists/> (accessed date March 27, 2021)
- Day, T., Park, A., Madras, N., Gumel, A., & Wu, J. (2006). When is quarantine a useful control strategy for emerging infectious diseases? *American Journal of Epidemiology*, 163(5), 479–485. <https://doi.org/10.1093/aje/kwj056>
- De Rosa, S., Spaccarotella, C., Basso, C., Calabrò, M. P., Curcio, A., Filardi, P. P., Mancone, M., Mercuro, G., Muscoli, S., Nodari, S., Pedrinelli, R., Sinagra, G., & Indolfi, C. (2020). Reduction of hospitalizations for myocardial infarction in Italy in the COVID-19 era. *European Heart Journal*, 41(22), 2083–2088. <https://doi.org/10.1093/eurheartj/ehaa409>
- Desclaux, A., Badji, D., Ndione, A. G., & Sow, K. (2017). Accepted monitoring or endured quarantine? Ebola contacts' perceptions in Senegal. *Social Science & Medicine*, 178, 38–45. <https://doi.org/10.1016/j.socscimed.2017.02.009>
- DiGiovanni, C., Conley, J., Chiu, D., & Zaborski, J. (2004). Factors influencing compliance with quarantine in Toronto during the 2003 SARS outbreak. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*, 2(4), 265–272. <https://doi.org/10.1089/bsp.2004.2.265>
- Dubey, S., Biswas, P., Ghosh, R., Chatterjee, S., Dubey, M. J., Chatterjee, S., Lahiri, D., & Lavie, C. J. (2020). Psychosocial impact of COVID-19. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 14, 779–788. <https://doi.org/10.1016/j.dsx.2020.05.035>
- Eisma, M. C., Boelen, P. A., & Lenferink, L. I. (2020). Prolonged grief disorder following the Coronavirus (COVID-19) pandemic. *Psychiatry Research*, 288, 113031. <https://doi.org/10.1016/j.psychres.2020.113031>
- Giubilini, A., Douglas, T., Maslen, H., & Savulescu, J. (2018). Quarantine, isolation and the duty of easy rescue in public health. *Developing World Bioethics*, 18(2), 182–189. <https://doi.org/10.1111/dewb.12165>
- Humphreys, K. L., Myint, M. T., & Zeanah, C. H. (2020). Increased risk for family violence during the COVID-19 pandemic. *Pediatrics*, 145(4), e20200982. <https://doi.org/10.1542/peds.2020-0982>
- Lee, S., Chan, L. Y., Chau, A. M., Kwok, K. P., & Kleinman, A. (2005). The experience of SARS-related stigma at Amoy Gardens. *Social Science & Medicine*, 61(9), 2038–2046. <https://doi.org/10.1016/j.socscimed.2005.04.010>
- Lee, Y. M., Lang, D., & Tho, P. C. (2011). The experience of being a neutropenic cancer patient in an acute care isolation room: A systematic review of qualitative evidence. *JBI Evidence Synthesis*, 9(12), 400–416. <https://doi.org/10.11124/01938924-201109120-00001>
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *Journal of Clinical Epidemiology*, 62(10), e1–e34. <https://doi.org/10.1136/bmj.b2700>
- Lin, E. C. L., Peng, Y. C., & Tsai, J. C. H. (2010). Lessons learned from the anti-SARS quarantine experience in a hospital-based fever screening station in Taiwan. *American Journal of Infection Control*, 38(4), 302–307. <https://doi.org/10.1016/j.ajic.2009.09.008>
- Longhini, J., Ambrosi, E., Dal Degan, S., Bedin, B. M., & Saiani, L. (2019). The team-based care models in primary care: General Practitioners' perspectives on nurses' role. *Assistenza Infermieristica e Ricerca*, 38(2), 66–76. <https://doi.org/10.1702/3169.31498>

- Marsili, M. (2020). Covid-19: Separation and mourning. Is a "nourishing time" of waiting possible? *Rivista di Psicologia dell'Emergenza e dell'Assistenza Umanitaria*, 22, 56–79.
- Munro, A. P., & Faust, S. N. (2020). Children are not COVID-19 super spreaders: Time to go back to school. *Archives of Disease in Childhood*, 105, 618–619. <https://doi.org/10.1136/archdischild-2020-319474>
- Nyblade, L., Stockton, M. A., Giger, K., Bond, V., Ekstrand, M. L., Lean, R. M., Mitchell, E. M. H., Nelson, L. R. E., Sapag, J. C., Siraprasiri, T., Turan, J., & Wouters, E. (2019). Stigma in health facilities: Why it matters and how we can change it. *BMC Medicine*, 17(1), 1–15. <https://doi.org/10.1186/s12916-019-1256-2>
- Onwuegbuzie, A. J. (2003). Effect sizes in qualitative research: A progenomenon. *Quality and Quantity*, 37(4), 393–409. <https://doi.org/10.1023/A:1027379223537>
- Orset, C. (2018). People's perception and cost-effectiveness of home confinement during an influenza pandemic: Evidence from the French case. *The European Journal of Health Economics*, 19(9), 1335–1350. <https://doi.org/10.1007/s10198-018-0978-y>
- Park, S., Choi, G. J., & Ko, H. (2020). Information technology-based tracing strategy in response to COVID-19 in South Korea—privacy controversies. *JAMA*, 323, 2129–2130. <https://doi.org/10.1001/jama.2020.6602>
- Pellecchia, U., Crestani, R., Decroo, T., Van den Bergh, R., & Al-Kourdi, Y. (2015). Social consequences of Ebola containment measures in Liberia. *PLoS One*, 10(12), e0143036. <https://doi.org/10.1371/journal.pone.0143036>
- Prestia, D., Pozza, A., Olcese, M., Escelsior, A., Dettore, D., & Amore, M. (2020). The impact of the COVID-19 pandemic on patients with OCD: Effects of contamination symptoms and remission state before the quarantine in a preliminary naturalistic study. *Psychiatry Research*, 113213. <https://doi.org/10.1016/j.psychres.2020.113213>
- Rothstein, M. A. (2015). From SARS to Ebola: Legal and ethical considerations for modern quarantine. *Indiana Health Law Review*, 12, 227. <https://doi.org/10.18060/18963>
- Rovetta, A., & Bhagavathula, A. S. (2020). Covid-19-related web search behaviors and infodemic attitudes in Italy: Infodemiological study. *JMIR Public Health and Surveillance*, 6(2), e19374. <https://doi.org/10.2196/19374>
- Sandelowski, M., & Barroso, J. (2006). *Handbook for synthesizing qualitative research*. Springer Publishing Company.
- Sehdev, P. S. (2002). The origin of quarantine. *Clinical Infectious Diseases*, 35(9), 1071. <https://doi.org/10.1086/344062>
- Shaban, R. Z., Nahidi, S., Sotomayor-Castillo, C., Li, C., Gilroy, N., O'Sullivan, M. V. N., Sorrell, T. C., White, E., Hackett, K., & Bag, S. (2020). SARS-CoV-2 infection and COVID-19: The lived experience and perceptions of patients in isolation and care in an Australian healthcare setting. *American Journal of Infection Control*, 48(12), 1445–1450. <https://doi.org/10.1016/j.ajic.2020.08.032>
- Smith, B. J., & Lim, M. H. (2020). How the COVID-19 pandemic is focusing attention on loneliness and social isolation. *Public Health Research and Practice*, 30(2), 3022008. <https://doi.org/10.17061/phrp3022008>
- Smith, M. J., Bensimon, C. M., Perez, D. F., Sahni, S. S., & Upshur, R. E. (2012). Restrictive measures in an influenza pandemic: A qualitative study of public perspectives. *Canadian Journal of Public Health*, 103(5), e348–e352. <https://doi.org/10.1007/BF03404439>
- World Health Organization. (2016). *International health regulations (2005)*, page 9. Retrieved from <https://apps.who.int/iris/bitstream/handle/10665/246107/9789241580496-eng.pdf;jsessionid=1FD446DFBDAC5C7E37C780DE387C0574?sequence=1>
- World Health Organization. (2020). *WHO coronavirus disease (COVID-19) dashboard*. Retrieved from <https://covid19.who.int/> (accessed date February 15, 2021)
- World Health Organization. (2020). *WHO coronavirus disease (COVID-19) pandemic*. Retrieved from <https://covid19.who.int/> (accessed date March 27, 2021)
- World Health Organization. (2020). *Ebola virus disease*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease> (accessed date February 15, 2021)

## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

**How to cite this article:** Basso M, Visintini E, Achil I, et al. The experience of individuals placed in quarantine: A systematic review, meta-summary, and meta-synthesis. *Public Health Nurs*. 2021;00:1–10. <https://doi.org/10.1111/phn.12910>