Compliance with recommended preventive behaviours and restrictions for Covid-19: an exploratory analysis of Italians' attitudes

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Abstract. *Background and aim:* as a reaction to the COVID-19 pandemic, countries all over the world have undertaken wide-scale measures to prevent and limit the spread of the virus. Suggested preventative measures mainly included "lockdown", social distancing, wearing facemasks, and vaccinations. The success of these measures was widely dependent on the cooperation of citizens. However, people reacted differently to the several types of restrictions and recommendations. Even if the majority followed the rules, others ignored them. This study aims to investigate the reasons for the compliance or violation of the rules developed to fight against the COVID-19 pandemic in Italy. *Methods:* to answer the research question, the analysis of two different surveys conducted on a representative sample of Italians (N=2000) were conducted and analysed through descriptive statistics. *Results:* the data collection agreed with published literature. Compliance with rules during emergencies followed diligence and altruistic patterns. Fear of sanctions did not seem to work in relation to rules compliance during emergency situations. The lack of clarity of regulations in terms of complexity or constant changes led to non-compliance even intervening as a neutralization technique. *Conclusions:* government's fear-based interventions did not seem to work since Italians tended to adhere to the rules primarily out of respect for legitimate authority. Future research should focus more on the topic of trust in institutions in emergency situations with the aim of highlighting the key points for successful governance, also in terms of rules compliance (www.actabiomedica.it).

Key words: Rules compliance, mandatory laws, Covid-19, pandemic

Introduction

Compliance with the rules is a central component for the success of any conservation project, intended as the maintenance of the structure of a social group. However, non-compliance is also common since it can undermine the underlying objectives of the conservation process and have far-reaching impacts on the social and ecological systems in which all conservation actions are embedded (1). The emergence of early normativity would seem to originate from an imitative process of the social environment, through the implementation of behaviours that conform to norms or are demanded by caregivers (2). Several authors have emphasised the role of imitation in the development of cultural agency, highlighting imitation and internalised normative attitudes as ontogenetic roots of normativity (3-5). The violation of norms has both

individual and social antecedents, some of which influence the importance attached to higher-level norms (e.g., social norms). Power, status, and disrespect for rules are those that undermine the individual's motivation to adhere to social norms the most. The anti-social behaviour of relevant others follows (6). Travaglino and Moon hypothesised that individualism and collectivism make a significant contribution in the understanding of human behaviour being responsible for cultural variations in terms of adherence or non-adherence to rules (7). These dimensions reflect the extent to which cultural groups value independence, by emphasising the importance of the individual, or interdependence, by emphasising the importance of the collective. It is, therefore, possible to distinguish cultures based on their different emphasis on the concepts of equality or hierarchy: "horizontal" cultures referring to social groups based on equality of status and "vertical" cultures in contexts structured on hierarchical relations and status differences. Collectivist cultures seem to have a higher degree of trust in government, which makes regulatory restraint more easily accepted.

A central component of anti-normative action is the emotional experience, which appears to differ between cultures. A recent study conducted by Redford examined the action tendencies associated with the emotional experience of anger in Hong Kong and the UK (8). The comparison between the collectivist and individualist cultural contexts showed that British individuals were more likely to report direct aggression action tendencies than Hong Kongers. This result is in line with the idea that anger is one of the facilitating factors of norms violation and that its implementation is strongly linked to cultural orientation (9). Social systems promote emotions in line with cultural goals and such choices can contribute to the observance of the cultural practices promoted (9).

Adherence to the rules seems also to be positively correlated with the degree of participation of individuals to the rule-making process and negatively with the specificity (i.e., the peculiarity or uniqueness of the standard-setting process) with which the rules were defined (10). Social cognitive theory postulates that individuals can disengage from their own moral standards, thus allowing themselves to commit immoral acts (11). In fact, an individual's compliance with social norms can be influenced by compliance with norms by other actors. Observing the violation of norms erodes an individual's conformity to norms, leading them to a change in beliefs about the norms themselves and to non-compliance (12). A relevant element to be considered is that norms rarely die, being structurally resilient and being able to withstand even high levels of non-compliance and this is valid both for norms of a social nature and for those of a juridical nature (13). According to Turiel, in terms of content, legal norms overlap with both moral norms and conventional norms, imposing obligations or prohibitions, but differing in the attribution of powers, public or private (14,15). When legal norm compliance is a critical factor, social communication and information campaigns can play a key role, positively influencing behaviour (16). There is a complex set of possible interventions that can be pursued, each of which is suited to address a different set of factors that determine compliance behaviour. Most of them are coercive in nature, focused on enforcement, that leverage the possibility of detection, the likelihood of prosecution and conviction, or the size of penalties (17). At times, interventions can also lead to unpredictable consequences: proper enforcement can increase resentment and undermine the perceived legitimacy of authorities (18). Offenders act according to their perception of the legitimacy of the rules in force, which may in turn be influenced by additional factors, first and foremost the degree of involvement in the formation of the rules. (19). The literature evaluating the effectiveness of interventions aimed at curbing non-compliance is currently very limited, due to the difficulty in defining and evaluating the construct of non-compliance and to the lack of longitudinal data (18). A fundamental flaw of conformity studies is the abstraction from the problem of interpretation, when instead, interpretation is pervasively determinative of compliance with legal norms. Conformity' studies converge in considering that there is a stable and shared meaning of a norm, deeming it sufficient to notice whether it is observed. Differently, norms can guide, inspire, rationalise, justify behaviour, and express expectations of it, or they can be ignored (20). According to Tyler, individuals obey the law if they believe it to be legitimate, not because they fear the punishment of breaking it (21). The author suggests

that lawmakers should focus on making legal systems worthy of respect rather than trying to instil fear of punishment, considering that people tend to adhere to the rule primarily out of respect for legitimate authority. Likewise, the trust placed in institutions seems to have an impact on behavioural choices. In societies in which the government is perceived to be efficient, high levels of social and civic engagement within society is observed (7). This seems to take on central importance when non-compliance with the rule entails a risk of social significance, such as the impairment of the right to health.

Considering the above-mentioned scientific evidence, the current study aims to analyse which factors underlie the compliance or non-compliance with the legal norms, with theirs exquisitely social connotations, developed to contain the COVID-19 pandemic in Italy.

Since the beginning of the COVID-19 epidemic in Italy, the Italian Government implemented several restrictive measures to contain the spread of the infection (22). During the COVID-19 pandemic, several studies were conducted to explore what factors may or may not have been conducive to adherence to legal norms, the most relevant to the present work are listed below. One of the most recent is a cross-cultural study conducted by Travaglino and Moon which highlights how trust in the government and feelings of shame and guilt can explain individuals' compliance with social distance and their intention to report the infection to health authorities or acquaintances/friends (7). Specifically, it was found that the feeling of shame at the idea of contracting the virus was negatively associated with compliance in all the three countries considered (i.e., United States, Italy and Korea). Differently the hypothesised association between trust in government and compliance was statistically significant only in Italy (on a sample of 606 Italian individuals). A further work focused on the relationship between the most common emotional responses associated with the pandemic and social distancing compliance (23). It emerged that fear of becoming sick correlates positively with all indicators of compliance with social distancing policies, in contrast to anger, which was found to be correlated with indicators of stigmatisation towards people infected with COVID-19. Finally,

depression showed a negative correlation with social distancing policies, but a positive relationship with voluntary social distancing practice. The theme of fear is also considered the most impactful factor in Demirtas-Mandran review in the process of persuasion to comply with prevention rules, especially those concerning health-related behaviour (24). Indeed, fear-based appeals seem to be effective in inculcating healthy behaviour, which is why many theories have been developed from this assumption. Again, another research found out that people have respected the rules not out of fear but rather out of sharing, in terms of the desire to fight the common "enemy" and protecting oneself and others from a dangerous contagion which sometimes could be deadly (25). In contrast, a study conducted on a sample of 26508 citizens during the first wave of the COVID-19 showed that fear is in turn determined by an additional construct, which is the sense of self-efficacy (26). In fact, the effects of fear were reduced among those who felt effective, who enacted norm-compliant behaviour even without fear. Again, another research showed that people have respected the rules not out of fear but rather out of sharing, in terms of the desire to fight the common "enemy" and protecting oneself and others from a dangerous contagion which sometimes could be deadly (26). In the Italian context, as previously mentioned, the breach of the rule seems to be associated with Government's credibility, especially with the initial mismanagement of the crisis as well as the lack of a clear plan for managing the following phases of the pandemic. One of the key issues throughout the pandemic has turned out to be the efficient communication and dissemination of information and actions necessary to prepare the population for the crisis (27). The increase in the number of weekend fines in Italy shows that the government was not able to effectively prepare citizens to accept the isolation restrictions (27). Again, the disappointment over an unfulfilled promise by the institutions seems to be a relevant factor as highlighted by the research of Briscese et al. (28). The results show that expectations about the duration of social isolation measures influence the public's intention to adhere to the restrictions. The public's willingness to adhere to the deadline in the event of an extension depends on the comparison between the duration of the extension and their

expectations. A negative comparison is associated with a lower willingness to comply. Badman et al. demonstrated that trust in institutions and not in political leaders determined compliance in COVID-19 prevention measures in 12 different countries (29). Similarly, the results of a cross-sectional (on 23 countries) and longitudinal study conducted by Han et al. highlighted how higher trust in government was significantly associated with higher adoption of health behaviours and prosocial behaviours (30).

The aim of this study is to understand the reasons for compliance with or violation of legal rules developed to prevent and limit the COVID-19 pandemic in Italy.

Materials and methods

We conducted a study by means of the elaboration and administration of a survey. The survey was divided in three sections (General Information, the Vaccine, and the Green Pass), for a total of 40 items. The study was performed using online interviews, administering them using the CAWI (Computer Aided Web Interviewing) method. The data provided to the researchers was anonymous. The survey was administered by AstraRicerche, which guaranteed: a) consistency check on responses; b) check on the overall time of compilation and of each single application; c) the adherence to the privacy legislation. The collected data was analysed using descriptive statistical technique. In this study, there was no interference of observers who did not induce any kind of modification. The sampling method was probabilistic with simple randomisation (i.e., the researchers established a sample structure and technical term to describe the list of elements in the population).

The survey was administered to two samples (n=2000) of the Italian population between the ages of 18 and 70 of both sexes. The first sample was interviewed in March 2021 about the level of compliance with rules and understanding of restrictions and regulations developed during the first and second wave of the pandemic in Italy (N=1004 Italians). See Table 1. The second sample was interviewed in October 2021 (fourth wave of the pandemic in Italy)

Table 1. Sample description − Survey on the level of compliance with COVID-19 regulations and restrictions.

	% in the overall sample (n=1004)	% among COVID-19 cases (n=67)
Sex		
Female	49.6%	56.7%
Male	49.5%	40.3%
NA	0.9%	3.0%
Total	100%	100%
Age		
18-35 years	27.9%	29.9%
36-55 years	44.0%	53.7%
55-70 years	28.1%	16.4%
Total	100%	100%
Area of residence		
North-West	26.8%	32.8%
North-East	18.9%	23.9%
Center	22.8%	22.4%
South	31.5%	20.9%
Total	100%	100%

on COVID-19 vaccination and Green-Pass measure (N=1005 Italians). See Table 2.

Results

Compliance with COVID-19 restrictions and regulations during the 1st and 2nd wave of the pandemic

Overall, 1 out of 10 contracted the COVID-19 and 2 out of 10 had a family member who had the virus. Most of the sample spent the lock-down of 2020 spring at home. A total of 89% of respondents reported that they respected the rules both during the two epidemic waves and in the summer, when they were not mandatory. Only 2% did not respect the rules. This percentage increased to 4% if we consider only those who had contracted COVID-19. Among the main reasons for respecting the rules, there was their intrinsic obligation (the rules must be respected) and the fear of contracting the virus and infecting family

members (altruistic behaviours). See Figure 1. The majority of those who did not respect rules emphasized that the measures were violating their rights and were too strict; thus, breaking the rules, they would have not harmed anyone.

Table 2. Sample description – Survey on COVID-19 vaccination and Green-Pass measure.

	% in the overall sample (n=1005)	% among COVID-19 cases (n=120)
Sex		
Female	50.0%	40.0%
Male	49.7%	58.4%
NA	0.4%	0.8%
Total	100.0%	100.0%
Age		
18-35 years	24.7%	34.4%
36-55 years	40.8%	42.4%
55-70 years	34.5%	23.2%
Total	100.0%	100.0%
Area of residence		
North-West	26.5%	27.2%
North-East	19.0%	19.2%
Center	22.8%	19.2%
South	31.7%	34.4%
Total	100%	100%

Respondents to the survey can be profiled by their answers. See Figure 2. The most common profile both during the first and second wave of the pandemic was "the diligent". This profile indicated those who followed the rules mainly because they were convinced that rules had to be respected or because experts suggested that. The second most frequent profile was the "altruistic". They were not afraid for their own health but were mainly of transmitting the virus to others. The third profile is "egoistic". These respondents were concerned about their own health, others' judgment, and sanctions. They represented a minority in our sample.

The most common attitude towards anti-COVID-19 measures was satisfaction with the rules. See Figure 3. Most respondents considered the norms adequate, scientifically grounded, and clear. Satisfaction towards rules decreased during the second wave of the pandemic. People were probably tired of restrictions and unsatisfied with public institutions activities against COVID-19. Fully unsatisfied towards norms considered them inadequate poorly grounded from a scientific point of view and unclear. These negative evaluations doubled from the first to the second wave (from 12.1 % to 23.5 %). We found intermediate profiles that criticized only specific aspects of anti-COVID-19 measures. During the first wave, unsatisfaction with rules was mainly linked to the perception that restrictions were not valid, not scientifically grounded. During the second wave, unsatisfaction was mainly linked to the adequacy and clarity of anti-COVID-19 measures.

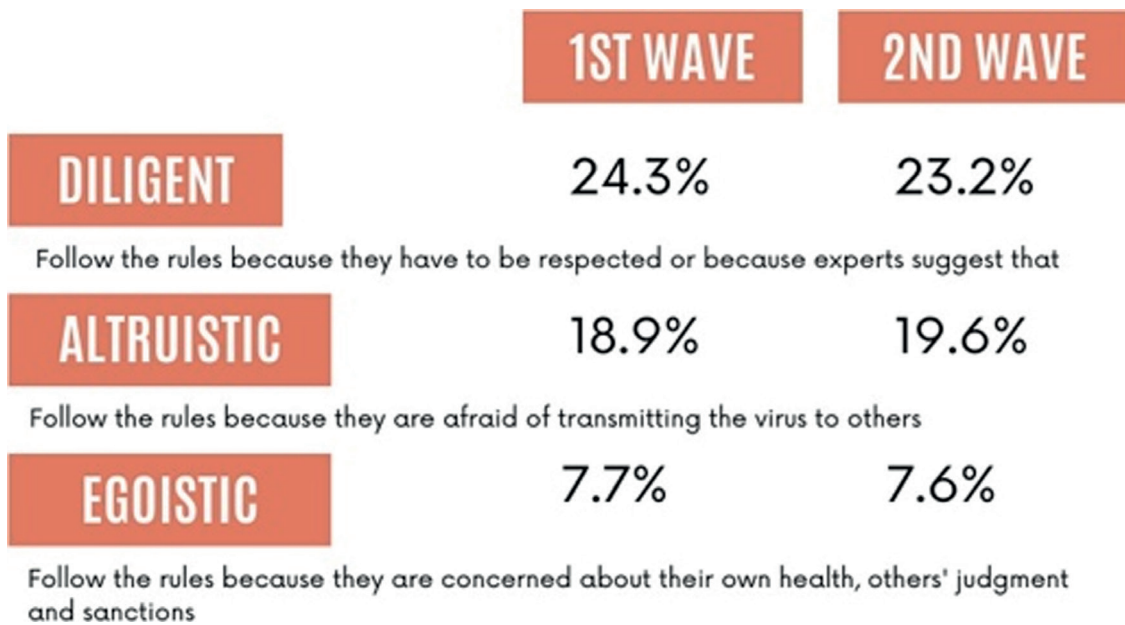**Figure 1.** Reasons for complying with rules.

	1ST WAVE	2ND WAVE
DILIGENT	24.3%	23.2%

Follow the rules because they have to be respected or because experts suggest that

	1ST WAVE	2ND WAVE
ALTRUISTIC	18.9%	19.6%

Follow the rules because they are afraid of transmitting the virus to others

	1ST WAVE	2ND WAVE
EGOISTIC	7.7%	7.6%

Follow the rules because they are concerned about their own health, others' judgment and sanctions

Figure 2. Profiles of compliers to rules.

	1ST WAVE	2ND WAVE
SATISFIED	39.4%	29.2%

Consider the norms to be adequate, scientifically grounded (valid) and clear.

	1ST WAVE	2ND WAVE
UNSATISFIED - CLARITY	3.4%	7.7%

Consider the norms to be adequate and scientifically grounded (valid) but unclear.

	1ST WAVE	2ND WAVE
UNSATISFIED - ADEQUACY	5.5%	11.6%

Consider the norms to be scientifically grounded and clear but not adequate with respect to the seriousness of the problem

	1ST WAVE	2ND WAVE
UNSATISFIED - VALIDITY	15.5%	2.4%

Consider the norms to be adequate and clear but not scientifically grounded.

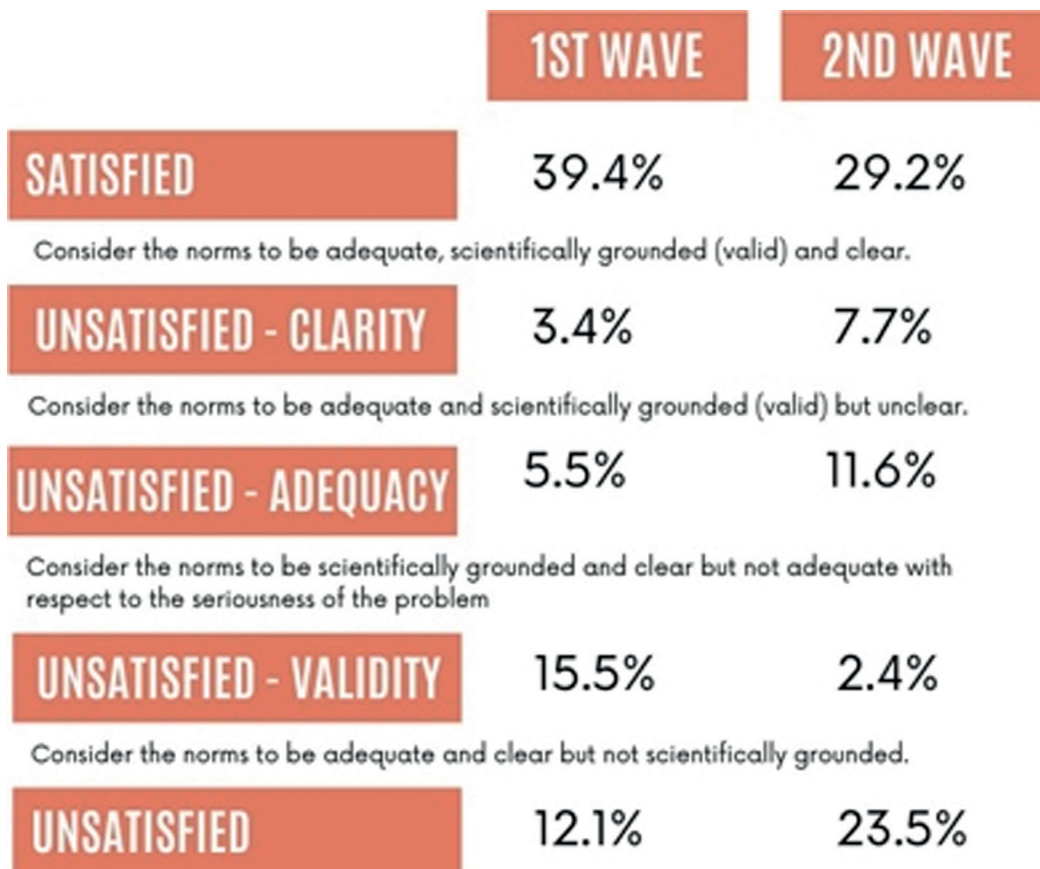|	1ST WAVE	2ND WAVE
UNSATISFIED	12.1%	23.5%

Figure 3. Evaluation of anti-COVID-19 measures.

When the measures were perceived as unclear, additional information was often searched for, especially during the second wave. In most cases, doubts were clarified. However, this did not necessarily lead to compliance with rules especially in the first wave. Moreover, many those who remained uncertain about specific behaviours decided to adhere to rules anyway. Therefore, the lack of clarity of some rules. e.g., due to excessive complexity or at time contradictions, led to non-compliance. At least, it intervened as a neutralization technique for justifying an illegal conduct.

National TV news emerged as the most used information channel both during the first and second epidemic waves (72% and 73%). See Figure 4. This is followed by institutional websites, regional news broadcasts, and national newspapers. In the first wave, the daily Civil Defence bulletin was also an important source of official information (44%). Social networks were also frequently used to collect information (36% and 34%), largely than television broadcasts (31% and 34%) especially during the first wave. On average, three different information channels were used to collect information on anti-COVID-19 measures. The different types of information channels have been used to identify three relevant profiles: a) the "TV-centered", those

who informed themselves only through news and/or television broadcasts. They represent about 15% of the population during both waves; b) the "social-media centered", those who used only social-media or other informal channels. They represent a minority in both waves (1.5 % and 1.7 %). Social media tended more often to take the form of a complementary information source; c) the "multiple sources", those who used six or more information channels. They were more representative during the first wave compared to the second wave (15.8% vs. 8.8%).

Satisfaction with norms was recurrent among those who consulted official sources and who used a variety of sources of information, including national news broadcasts and newspapers. See Figure 5. Conversely unsatisfaction with anti-COVID-19 measures was more recurrent among those who informed themselves via social media, especially in the absence of complementary sources. Social-media centered also showed less compliance with anti-COVID-19 measures.

Women were more compliant – not because of the intrinsic value of the rules or the experts' suggestions – as they showed to be aware of the severity of the pandemic gained through a better ability to read its data. See Table 3.
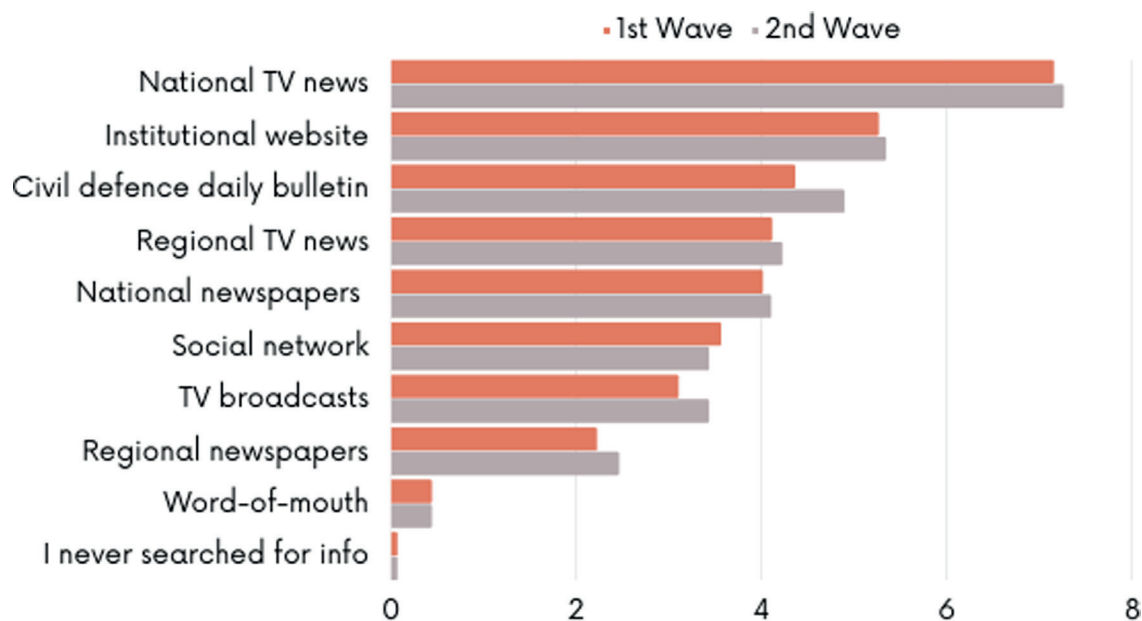

Figure 4. Sources of information on anti-COVID-19 regulations.

	COMPLIANT WITH NORMS	SATISFIED WITH NORMS	UNSATISFIED WITH NORMS
TV CENTERED Tv news and/or television broadcasts as source of information	85.7%	33.1%	10.4%
SOCIAL-MEDIA CENTERED Social-media as source of information	80%	6.7%	46.7%
MULTIPLE SOURCES Multiple sources of information (6 or more)	92.5%	42.1%	8.2%
TOTAL SAMPLE	88.8%	39.4%	12.1%

Figure 5. The impact of the source of information on rules compliance.

Table 3. Socio-economic drivers of rules compliance.

	Indicators	% in the sample	% difference in the various categories			
			Women	Over-55	Lower educational level	Job at risk
Satisfaction with norms	Satisfied	39.4%	+0.9%	-0.8%	-6.1%	-7.8%
	Unsatisfied	12.1%	-0.2%	+0.4%	-0.5%	+0.5%
Reasons for complying with norms	Diligent	24.3%	-4.4%	+4.4%	+6.3%	+2.1%
	Altruistic	18.9%	+0.2%	-4.0%	-2.3%	+1.9%
	Egoistic	7.7%	-1.2%	-2.7%	-0.1%	-3.3%
Others	Not compliant with rules	11.2%	-2.3%	-4.8%	-1.6%	-0.3%
	Impulsive	47.7%	-2.0%*	+12.7%*	+16.4%*	+5.0%

On the other hand, people of a higher age tended to trust the experts, as those with a lower level of education. However, less familiarity with scientific knowledge led people with lower level of education more easily to underestimate the pandemic data. Daily habits were less affected for those of a higher age. Even during the summer period, people in the mature and elderly demographic classes paid more attention to compliance, aided probably by a less dynamic social life. National news programs were a key source of information for them, in keeping with a well-established tradition. Those with a lower level of education, although heavily dependent on the television medium, gave less space to news programs and more to television broadcasts, generally using fewer sources of information.

The heterogeneous universe of workers at higher risk of infection (doctors and nurses, teachers, shopkeepers, clerks, etc) did not always feel sufficiently protected. The lives of these people were more widely affected, and their judgment of the rules was less positive. Direct experience in the field, probably weighs on this judgment, while information gathering from the mainstream media was less intense.

Compliance with COVID-19 vaccination and Green-Pass measures during the 4th wave of thepandemic

Overall, 82% of the sample was fully vaccinated, while 4.5% received only the first dose. The 14% was not vaccinated, including a small minority who preferred not to answer. Among those who contracted COVID-19, the percentage of not vaccinated increased to 17%. Many reported they changed their minds about the vaccine over time. About 30% of those in favour of the vaccine were initially against it. Conversely, 42% of those against the vaccine chose to not vaccinate despite being initially in favour. Among confirmed COVID-19 cases, both percentages increased: more than half changed their minds one way or the other. Fear for their own health and for that of their family members were the issues affecting the choice to get the vaccination mostly (42% and 43%). For 13% of them, the vaccine was the easiest way to get a Green Pass or a compulsory choice to not lose a job (11%). Half of the unvaccinated were concerned about side effects (49%), which were often considered unclear (44%). It also emerged a high degree of distrust towards institutions (35%) and of fatalism (22%). The 27% of the sample stated they were against the anti-COVID-19 vaccine but only 2% stated they were against all vaccines. A smaller percentage of the sample could not get vaccinated because of their health condition (10%) or of other impediments (6%) or because they recently contracted the infection (3%).

More than 90% of respondents reported to be fully compliant with Green Pass measures. The 8.7% of respondents reported to be not comply at all. The majority of those who were compliant with Green Pass rules were also vaccinated. The 4% got tested when needed while 5% chose to avoid places where the pass was required. Most respondents agreed with the idea that all rules must be respected (62%), followed by those who desired not to give up family and social relationships (38%) obtaining a Green Pass. Some respondents trusted the work of institutions (33%) and the need to safeguard one's job (17%). Distrust of institutions (38%), violation of rights (36%) and freedom (33%) were most often quoted as reasons for non-compliance with Green Pass rules. However, practical difficulties also weighed heavily: some respondents reported that the rules changed too often (21%), were too strict (18%) or were unclear (18%). Green Pass was a tool whose rules of use touched on sensitive issues such as individual freedom and social control. Only one-third of the sample considered the Green Pass unquestionably lawful from a legal point of view. Another third considered it quite lawful. The remaining third considered it little or not at all lawful or chose not to comment. Therefore, for 23% of the sample, it was a matter of complying with rules about which they had strong doubts. A 6% chose, on the other hand, to translate their criticism into facts: these were the disobedient ones who did not abide by rules considered illegitimate. Opposite was the case of the defaulters: a 3% who did not abide by rules even though they considered them lawful. Most of the sample, however, strongly agreed with the Green Pass measure.

The use of mask became a routine during the pandemic and 65% of respondents considered it a useful tool for limiting the spread of the virus. The vaccination and social distancing convinced more than half of the sample. Less than 50% supported the Green Pass. See Figure 6. Vaccination plan and the compulsory vaccination for certain categories of workers were less convincing (41% and 36% respectively). Lockdown was understandably less popular (35%). In the sample 1 out of 20 reported to be sceptical and considered none of the suggested tools useful. The gap between the anti-COVID-19 vaccine and the Green Pass in terms of perceived usefulness was confirmed by two more specific questions. More than half of the sample rated the vaccine as very useful. While for the Green Pass the percentage dropped below 40%. The Green Pass was more often rated as not very useful as the vaccine (11.3 % vs. 8.5 %) or even not useful at all (17.7 % vs. 6.6 %).

Only few respondents indicated clarity issues in relation to the vaccination and Green Pass. See Figure 7. Only indirectly related to scientific issues.
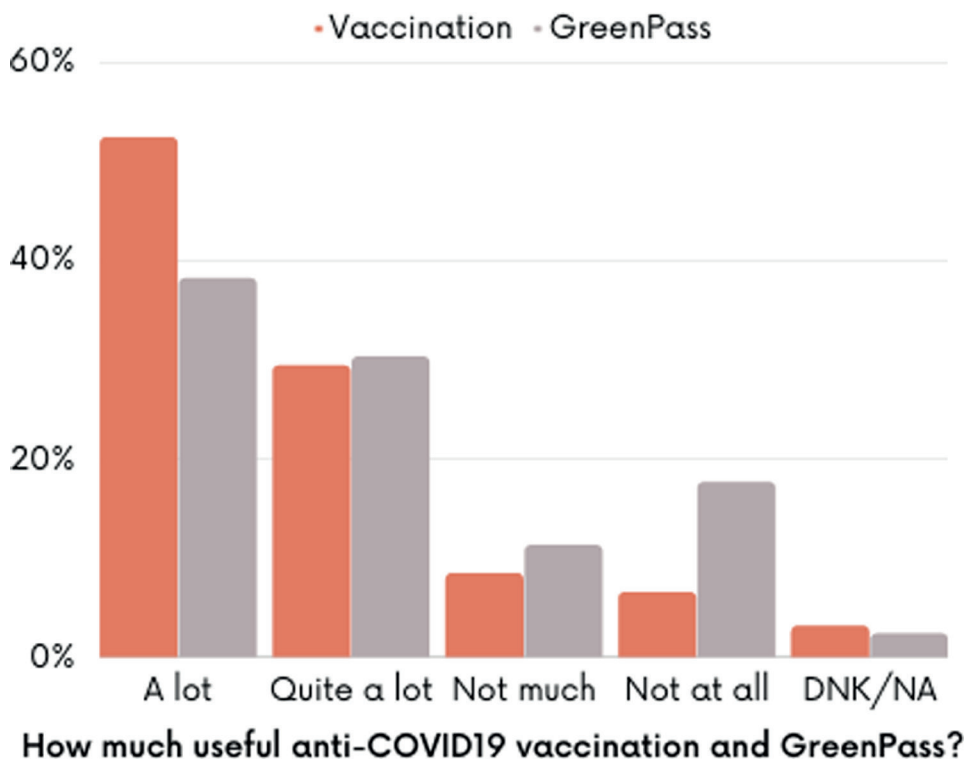
Figure 6. Usefulness of anti-COVID-19 measures.
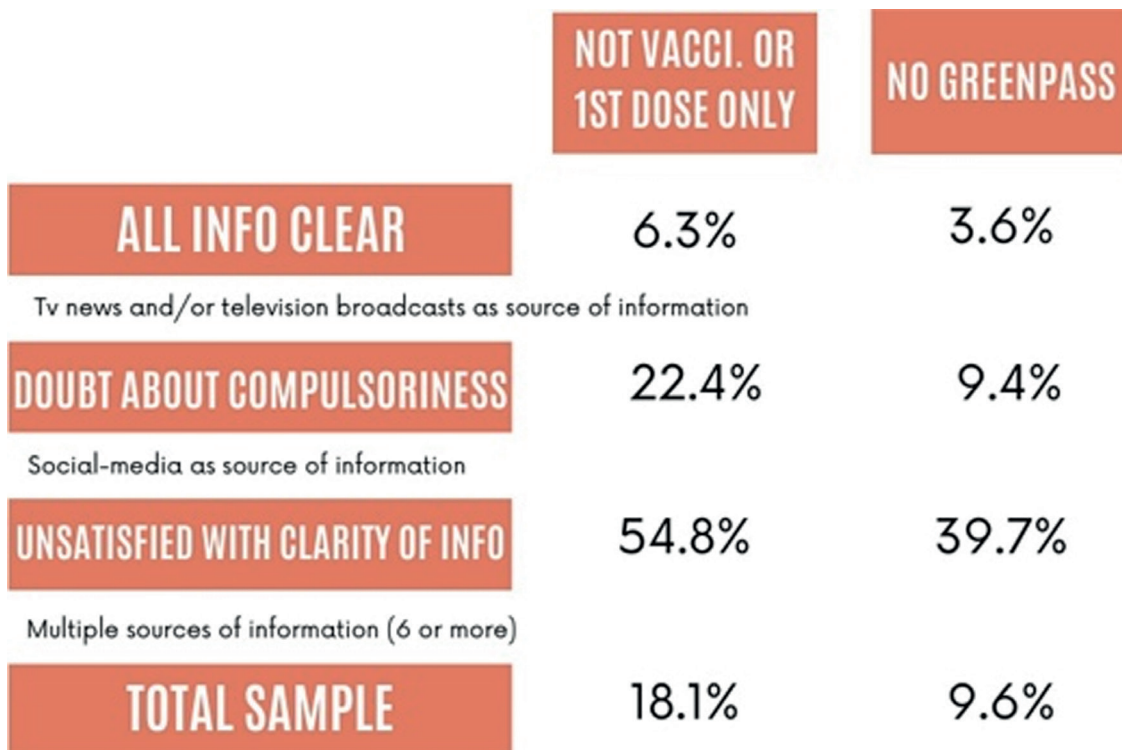

Figure 7. Clarity of information and attitudes toward vaccination and Green Pass.

Unlike the vaccine. As many as 8 out of 10 respondents rated as very of clear how to obtain the Green Pass and the places that require it. The compulsory aspect appeared somewhat more problematic. However, 7 out of 10 had no specific doubts about it.

Those who rated vaccine information as less clear complained above all about some inconsistency (51%). For example, the recommendations in relation to population groups, which have changed over time. Lack of transparency about side effects (45%) and lack of concreteness of some data (33 %) were also contested. Suggestions obtained from the entire sample on how to improve the information campaign revealed the potential usefulness of evaluations on the pros and cons of vaccines for vulnerable segments of the population (40%) and other scientific insights (33%), including meetings with experts (28%) and conferences with local representatives (24 %).

More than half of those who were unsatisfied with clarity of information was not vaccinated, compared to 94% of those who perceived it as clear. Among the respondents unsatisfied with clarity of information, the 40% reported they did not comply with Green Pass rules. The percentage dropped to less than 4% among those who considered all the information clear.

With advancing age, the propensity of being vaccinated and complying with Green Pass rules increased. See Table 4. Somehow, it increased trust in measures that were perceived as useful in protecting those in a condition of physiological vulnerability.

Conversely, a lower level of education was associated with greater scepticism, which increased the propensity for anti-system attitudes and behaviours. A propensity that appeared further exacerbated for many of the workers exposed to the virus. Many workers did not feel sufficiently protected by the institutions. Unlike women and the elderly, those with lower educational qualifications and those in at-risk professions were less informed and consulted institutional sites less. Those with at most a professional degree was more often dependent on the Internet and the information they found there. Those with a COVID-19 at-risk profession relied more on the television medium.

Discussion

The present study aimed to highlight the main reasons behind adherence to or violation of regulations during the COVID-19 pandemic, through the analysis of two surveys of a representative sample of Italians (N= 2000). The use of descriptive statistics led to the main findings, summarized below.

Compliance with rules during emergencies has followed diligence and altruistic patterns. Italians adhered to the regulations because they were concerned about the health of their family members rather than out of civic mindedness or internalization of legal norms. In fact, fear of sanctions did not seem to work in relation to rules compliance during emergency situations, according to literature (26). The data also showed that the lack of clarity of regulations in terms of their complexity or constant changes led to non-compliance. The confusion of the guidance facilitated citizens to feel entitled to disregard what was prescribed. When the measures were perceived as unclear, additional information was often searched for, and in most cases, doubts were clarified. However, this did not necessarily lead to compliance with rules especially in the first wave. A further interesting data was related to the source of information, which seems to have affected satisfaction with anti-COVID-19 measures more than the compliance with these measures. It emerged the importance to personalise information strategies

Table 4. Socio-economic drivers of vaccination and Green-Pass compliance.

Indicators	% in the sample	% difference in the various categories			
		Women	Over-55	Lower educational level	Job at risk
Not vaccinated or 1° dose only	18.1%	+0.8%	-2.3%	+4.4%	+2.7%
Not compliant with Green Pass	9.6%	-1.2%	-2.6%	+3.2%	+3.0%

on targeted population group (31). Again, women tended to be more compliant with anti-COVID-19 measures, also because they appeared to be more informed and consulted institutional websites. Only 1 out of 10 indicated newspapers and periodicals as their main source of information in general. Those who informed themselves through institutional websites, news broadcasts and through a diversity of sources turned out to be more often vaccinated. More than half of those who were unsatisfied with clarity of information was not vaccinated. The likelihood of getting vaccinated increased with the age of the respondents and decreased in relation to low educational background. The workers more exposed to the virus and with lower education were found to be more sceptical about both vaccination and Green Pass. This might be the result of a feeling of abandonment and lack of trust in decisionmakers.

Conclusion

These results highlighted how government's fear-based interventions should be replaced by the need to make government institutions and the regulatory system respectable and trustable, since Italians tended to adhere to the rules primarily out of respect for legitimate authority (e.g., in terms of clarity of regulations shared). Indeed, when the measures were perceived unclear, citizens resulted more prone to search information by themselves. This process encouraged the circulation of erroneous and deleterious information or beliefs. Future research should focus more on the topic of trust in institutions in emergency situations with the aim of highlighting the key points for successful governance also in terms of adherence to rules.

Authors Contribution: All authors contributed to the project and the study design. All authors contributed to subsequent revisions and editing. All authors read and approved the final manuscript.

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