Survey on attitudes towards COVID-19 preventive measures and protective behavior in Slovenia

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Abstract. This paper presents the dataset underlying the research on attitudes towards and compliance with instructed preventive measures during the COVID-19 pandemic in Slovenia. A summary of results and questionnaires in English and Slovenian language are provided. The study was conducted at the beginning of the first pandemic wave when citizens' uncertainty about the disease was at its peak.

Keywords and Phrases: epidemic, pandemic, COVID-19, general deterrence theory, protection-motivation theory

1 INTRODUCTION

The year 2020 was severely marked by the COVID-19 pandemic. The health crisis was accompanied by several restrictive measures (such as restrictions on free movement within the country, closing the national borders, and stopping the work processes in industries) enforced and controlled by the authorities. A general deterrence theory is applicable for investigating citizens' compliance in situations such as the one mentioned – when offenders are punished for non-compliance. This paper presents the research in which factors stemming from general deterrence theory is compared to the factors related to the protection-motivation theory, a generally accepted theory for explaining protective behavior.

The paper is structured as follows. In the next section, we provide details of the method. Section 3 describes the results. In the final section, the results are discussed.

2 METHOD

A survey questionnaire was designed to measure the general deterrence theory constructs (perceived severity of the formal and informal punishment and perceived certainty of formal and informal punishment (Allen et al., 2017; Moody et al., 2018)) and protection-motivation theory constructs (perceived vulnerability (Ho, 2012; Myers & Goodwin, 2011), perceived severity (Myers & Goodwin, 2011), self-efficacy, and response efficacy (Milne et al., 2002; Thrasher et al., 2016)). The dependent variable was self-reported compliance with instructed measures (items were self-developed). We also investigated attitudes towards these preventive measures. Items for attitudes were adapted from (Zhang et al., 2019). Altogether the questionnaire included ten constructs and 35 items. The questionnaire was originally developed in English and translated to the Slovenian language. The attitude was measured on a five-point semantic differential scale. Informal severity was measured on a five-point Likert-type scale from 1 – *Not ashamed at all* to 5 – *Extremely ashamed* (sl. 1 – *Sploh ne* to 5 – *Izjemno močno*). Other items were measured on a five-point Likert scale from 1 – *Strongly disagree* to 5 –

Strongly agree (sl. 1 – *Sploh se ne strinjam* to 5 – *Popolnoma se strinjam*). The questionnaire items are presented in Table 1 (see Appendix A: Tables).

2.1 Data collection

The online survey was conducted between April and May 2020 and distributed in ten Facebook groups to provide sample diversity. In total, we collected $N = 401$ responses. After excluding inadequate cases, we ended up with $N = 394$ respondents. The sample consisted of 76 percent women with a mean age of 31.3 years. Nearly half (45.7 percent) of respondents had less than bachelor's degree, 37.7 percent had bachelor's degree, 15.4 percent completed master's degree, while 1.3 percent hold a PhD. More than half (51.2 percent) of respondents were employed or self-employed, 39.3 percent were students, while 8.0 percent were unemployed or retired.

3 RESULTS

The frequencies of respondent's answers to each item are presented in Table 2 (see Appendix A: Tables).

4 DISCUSSION

The research has shown that respondents did not fear being infected by the virus SARS-CoV-2 and mainly were confident that they are self-efficient in protecting against the disease. They deemed the measures as efficient and had somewhat favorable attitudes towards instructed measures. Regarding the punishment, the informal severity was perceived as highest and formal certainty as lowest. They mostly followed the recommended preventive measures. Such compliance is – to some extent – to be expected since, at the beginning of the pandemic, the requirements for entering public and other facilities were highly supervised. The uncertainty of the conditions also shows through the high share of missing values at the attitudes.

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APPENDIX A: Tables

Table 1: Questionnaire items in Slovene and English

Construct	Code	Item in Slovene	Item in English
Attitude	A1	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: škodljiva - - - - - koristna.	I think recommended protective instructions given by government and health institutions are: harmful - - - - - beneficial.
	A2	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: nezaželena - - - - - zaželena.	I think recommended protective instructions given by government and health institutions are: undesirable - - - - - desirable.
	A3	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: slaba - - - - - dobra.	I think recommended protective instructions given by government and health institutions are: bad - - - - - good.
	A4	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: omejevalna - - - - - neomejevalna.	I think recommended protective instructions given by government and health institutions are: restrictive - - - - - unrestrictive.
	A5	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: neugodna - - - - - ugodna.	I think recommended protective instructions given by government and health institutions are: unfavorable - - - - - favorable.
	A6	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: nepravilna - - - - - pravična.	I think recommended protective instructions given by government and health institutions are: unfair - - - - - fair.
	A7	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: nerazumna - - - - - razumna.	I think recommended protective instructions given by government and health institutions are: irrational - - - - - rational.
	A8	Menim, da so priporočena zaščitna navodila, dana s strani vlade in zdravstvenih ustanov: nepotrebna - - - - - potrebna.	I think recommended protective instructions given by government and health institutions are: unnecessary - - - - - necessary.
Protective behavior	PB1	Sledim navodilom o samozaščitnih ukrepih, ki jih je podala medicinska stroka.	I am following the instructions regarding self-protective actions given by medical professionals.
	PB2	Sledim navodilom o samozaščitnih ukrepih, ki jih je podala vlada.	I am following the instructions regarding self-protective actions given by the authorities.
	PB3	Sledim navodilom o samozaščitnih ukrepih, ki so jih podale mednarodne medicinske in zdravstvene organizacije.	I am following the instructions regarding self-protective actions given by international medical and health organisations.
Perceived vulnerability	PV1	Obstaja visoka možnost, da se bom v naslednjih tednih okužil s COVID-19.	There is a high chance of me getting COVID-19.
	PV2	Možnost okužbe s COVID-19 je zame zelo realna.	Getting COVID-19 is currently a high possibility for me.
	PV3	Počutim se ranljivega za COVID-19.	I feel vulnerable to COVID-19.
Perceived severity	PS1	Zdravstveni zapleti povezani s COVID-19 so resni.	Complications from COVID-19 are serious.
	PS2	Če oseba dobi COVID-19, lahko resno zboli.	If a person gets a COVID-19, he/she could get very sick.
	PS3	COVID-19 je nevarna bolezen.	COVID-19 is a dangerous disease.
Self-efficacy	SE1	Prepričan sem v svojo sposobnost zaščite pred COVID-19.	I feel confident in my ability to protect myself from COVID-19.
	SE2	Ni se težko zaščititi pred COVID-19.	It is not difficult to protect myself from COVID-19.
	SE3	Samozaščita pred virusom COVID-19 je preprosta.	Protecting myself from COVID-19 is easy for me.
Response efficacy	RE1	Samozaščitni ukrepi so dober način za zmanjšanje tveganja, da dobim COVID-19.	Self-protective actions are a good way of reducing the risk of me getting COVID-19.
	RE2	Če bi deloval samozaščitno, bi zmanjšal tveganje, da dobim COVID-19.	If I were to take self-protective actions, my chances of getting COVID-19 would be lower.
	RE3	Samozaščitni ukrepi so učinkovit način za zmanjšanje moje ranljivosti za okužbo s COVID-19.	The self-protective actions are an efficient way of reducing my vulnerability to COVID-19.

Informal severity	IS1	Kako sram bi vas bilo, če bi vas ujeli med kršenjem zaščitnih ukrepov/navodil in bi se pojavili na družbenih omrežjih.	How ashamed would you be if you were to be caught violating the COVID-19 protective instructions and appear on social networks.
	IS2	Kako sram bi vas bilo, če bi vas ujeli med kršenjem zaščitnih ukrepov/navodil in bi se pojavili na televiziji.	How ashamed would you be if you were to be caught violating the COVID-19 protective instructions and appear on TV.
	IS3	Kako sram bi vas bilo, če bi vas ujeli med kršenjem zaščitnih ukrepov/navodil in bi se pojavili v drugih množičnih medijih.	How ashamed would you be if you were to be caught violating the COVID-19 protective instructions and appear on other mass media (e.g. newspapers, radio, news websites).
Informal certainty	IC1	Drugi ljudje bi me zelo verjetno zasramovali, če bi kršil zaščitna navodila.	Other people are very likely to shame me if I would violate protective instructions.
	IC2	Zelo verjetno je, da bi me drugi ljudje obsojali, če bi kršil zaščitna navodila.	There is a high possibility that I would be condemned by other people, if I would violate protective instructions.
	IC3	Če bi kršil zaščitna navodila, obstaja velika verjetnost, da bi me drugi ljudje prijavili oblastem.	If I would violate protective instructions there are high odds that I would be reported to the authorities by other people.
Formal severity	FS1	Če bi me oblasti zasačile pri kršenju navodil za zaščito pred virusom COVID-19 bi bil to zame velik problem.	If i were to be caught by the authorities violating the COVID-19 protective instructions it would be a serious problem for me.
	FS2	Če bi me oblasti zasačile pri kršenju navodil za zaščito pred virusom COVID-19 bi bil deležen stroge kazni.	If i were to be caught by the authorities violating the COVID-19 protective instructions I would receive a severe penalty.
	FS3	Če bi me oblasti zasačile pri kršenju navodil za zaščito pred virusom COVID-19 bi mi to otežilo življenje.	If i were to be caught by the authorities violating the COVID-19 protective instructions It would make my life difficult.
Formal certainty	FC1	Če bi prekršil navodila za zaščito pred COVID-19 obstaja velika verjetnost, da bi me organi pregona zaznali.	If I were to violate the COVID-19 protective instructions there are high odds that I would be detected by the authorities.
	FC2	Če bi prekršil navodila za zaščito pred COVID-19 bi me organi pregona zelo verjetno kaznovali.	If I were to violate the COVID-19 protective instructions I am very likely to be punished by the authorities.
	FC3	Če bi prekršil navodila za zaščito pred COVID-19 bi me organi pregona zelo verjetno odkrili.	If I were to violate the COVID-19 protective instructions it is certain that I would be caught by the authorities.

Table 2: Frequencies of answers for each item

Item code	Missing	1	2	3	4	5
A1	14	15	30	88	119	128
A2	22	31	65	111	85	80
A3	22	24	45	108	104	91
A4	22	97	59	74	82	60
A5	21	64	89	122	64	34
A6	19	51	73	106	90	55
A7	18	51	59	95	93	78
A8	17	27	57	79	97	117
PB1	1	10	6	37	132	208
PB2	2	24	36	85	735	112
PB3	2	13	11	76	137	155
PV1	0	111	114	124	32	13
PV2	0	85	118	96	68	27
PV3	0	121	120	76	51	26
PS1	3	19	35	78	154	105
PS2	2	19	36	67	151	119
PS3	3	22	49	104	123	93
SE1	3	2	16	77	198	98
SE2	1	10	65	134	128	56
SE3	0	22	62	133	121	56
RE1	0	7	13	60	185	129
RE2	0	12	11	73	173	125
RE3	2	16	28	66	166	116
IS1	2	72	55	86	98	81
IS2	2	64	55	80	102	91
IS3	1	73	48	87	103	82
IC1	2	41	74	143	100	34
IC2	3	16	53	119	156	47
IC3	3	24	93	136	92	46
FS1	3	33	65	127	120	46
FS2	3	28	60	111	144	48
FS3	4	55	80	123	92	40
FC1	4	37	113	138	80	22
FC2	5	25	79	128	127	30
FC3	6	47	123	145	57	16