Original Article

Designing and Evaluating Validity and Reliability of the Questionnaire Concerning the Factors Affecting Person's Intention of COVID-19 Prevention (FAPI-COP)

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(Received: 7 Apr. 2022; Revised: 15 Jun. 2022; Accepted: 19 Jul. 2022)

Abstract

Background and Purpose: COVID-19's proliferation worldwide remains a significant threat to public health; therefore, the assessment and measurement of people's intentions concerning the prevention of this threat can contribute to the development of suitable educational messages that promote preventive behaviors. This study aimed to develop a questionnaire to determine the factors affecting person' intention of COVID-19 prevention (FAPI-COP).

***Materials and Methods*:** This descriptive study was conducted on the people living in Mazandaran Province in 2020. The questionnaire was designed via literature review, focus group discussions, and interview with experts. A total of 10 specialists were selected to determine the content validity scores and 10 Mazandarani laypeople used to determine the reliability of the questionnaire. Finally, content validity index (CVI) and content validity ratio (CVR) were calculated by using Cronbach's alpha and intraclass correlation coefficient (ICC) in SPSS, version 24.00.

***Results*:** The first questionnaire consisted of 51 questions, and after evaluating validity and reliability, 36 questions were obtained. The content validity index of the questionnaire was 0.91, the content validity ratio 0.69, the Cronbach's alpha coefficient 0.78, and the internal correlation coefficient (ICC) 0.95 with the confidence interval of 0.80-0.99.

***Conclusion*:** The results of the study showed that the present questionnaire had acceptable levels of reliability and validity, making it a useful tool in determining the factors affecting intention of COVID-19 prevention by people.

***Keywords*:** Questionnaire Development; Validation; Intention; Prevention; COVID-19.

Citation: **Khazaee-Pool M*,** Naghibi SA, Pashaei T, Ponnet K. Designing and Evaluating Validity and Reliability of the Questionnaire Concerning the Factors Affecting Person's Intention of COVID-19 Prevention (FAPI-COP). Iran J Health Sci. 2022; 10(3): 1-12.

[DOI: 10.18502/jhs.v10i3.10517]

1. *Introduction*

The Coronavirus disease 2019 (COVID-19) was first detected in 2019 in Wuhan, China. Since then, it has spread worldwide, leading to the 2019–2020 COVID-19 pandemic (1, 2). Cough, fever, and shortness of breath are common COVID-19 symptoms, with muscle pain, sore throat, loss of smell or taste, excess sputum, diarrhea, and abdominal pain reported as other possible symptoms (3, 4). On January 30, 2020, the World Health Organization (WHO) confirmed that the disease was a public health emergency of international proportions (PHEIC) (8). The virus is spread mainly through close contact and droplets that are expelled into the air when individuals breathe, cough, or sneeze (4–6). It commonly takes two to 14 days after contact for the first symptoms to surface. The infection can be detected using a group of risk factors and symptoms, as well as a chest CT scan that can detect signs of pneumonia (5, 6).

Preventive measures that decrease the risk of infection include staying at home, not frequenting crowded places, washing hands with soap and hot water for a minimum of 20 seconds, not touching the mouth, eyes, or nose with dirty hands, and practicing social distancing from others (a minimum of about 1.80 meters) (7). It appears that the high COVID-19 rate worldwide is complex, so educational interventions to reduce spread and improve people's intention to engage in preventive behaviors are potentially the most useful methods of protecting against COVID-19. Therefore, an instrument that can assess people's intention to practice behaviors that prevent COVID-19, as well as to evaluate factors that affect this intention, is urgently needed. One of the approaches to questionnaire design, particularly to gauge preventive behaviors, is the use of motivational theories, such as protection motivation theory (PMT). PMT is used to assess behavior associated with threats and coping mechanisms related to health dangers and behavioral intention. It includes seven constructs organized as two pathways that relate to perceptions of behavior: (1) The threat appraisal pathway, an evaluation of individuals' perceptions of the threat of certain behaviors; and (2) the coping appraisal pathway, an evaluation of an individual's ability to cope with the threat. The threat appraisal pathway includes four constructs in two groups, with one group measuring perceived threats via two sub-constructs (severity and vulnerability) and another group measuring perceived rewards, also via two sub-constructs (intrinsic and extrinsic rewards). The coping appraisal pathway includes three sub-constructs in two groups, with one group measuring perceived efficacy with two sub-constructs (response efficacy and self-efficacy), and another measuring perceived costs (i.e., response costs). PMT emphasizes training for decision making by measuring the risks of diseases and benefits from protection, as well as motivating people to take protective measures against diseases. Threat refers to the extent to which people perceive that they are vulnerable to health risks, as well as the seriousness of such risks. Coping refers to the extent to which individuals perceive that a specific behavior could protect them from health

[DOI: 10.18502/jhs.v10i3.10517]

danger risks and whether they would practice the behavior. Self-efficacy is the most closely related to intention because individuals are most likely to take action if they believe that they could adopt an adaptive behavior successfully. Therefore, PMT is suitable for determining how beliefs affect intention and behavior. PMT also may be applied to determine effective communications that can reform existing postoperative recommendations (Figure 1) (8).

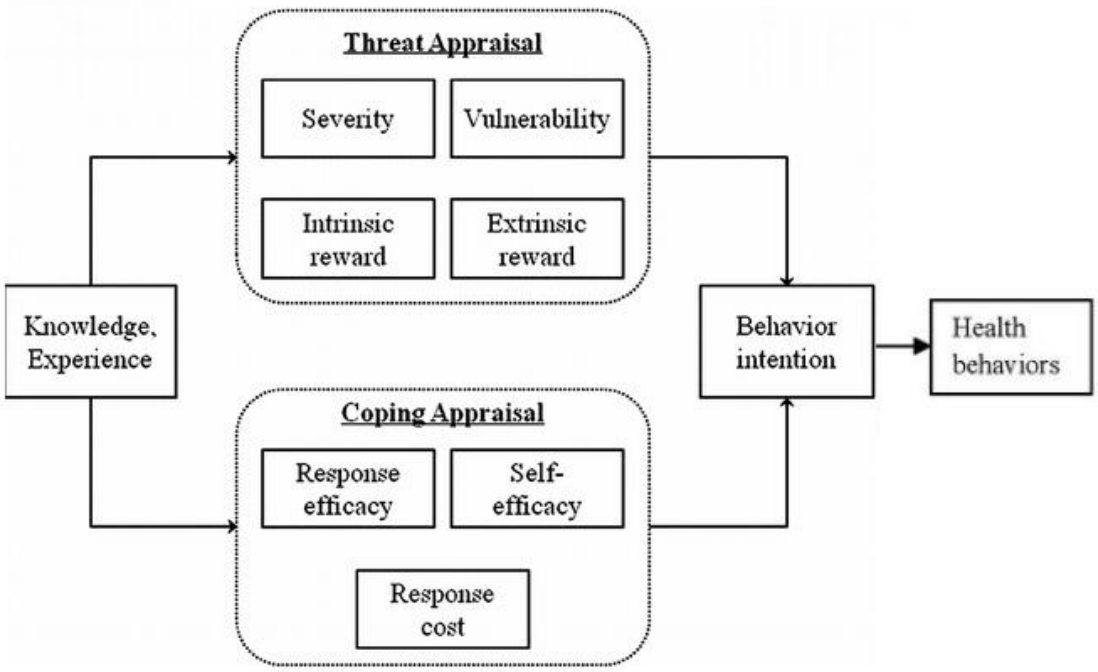

Figure 1. The Protection Motivation Theory (PMT)

Thus, according to the literature review, PMT is suitable for application in the design of interventional programs. Because of the importance of intention in motivating behavior, factors that influence personal intention regarding implementation of protective behavior must be identified to improve any health promotion plan. Therefore, a valid and reliable questionnaire is needed to pinpoint personal intention to practice preventive behaviors. Based on PMT, several instruments have been developed to measure the extent to which intervention could improve human behavior.

However, since COVID-19 is a new disease in the present century and it has become a pandemic, no previous study or questionnaire based on PMT has so far been published. Therefore, developing a valid questionnaire is necessary to assess factors that influence personal intention regarding COVID-19 prevention. This study aimed at developing and validating a questionnaire that measured PMT variables associated with intention to adopt protective behaviors regarding COVID-19. Such questionnaires could help identify health experts and policymakers' perspectives as well, thereby helping to develop extensive interventional plans to improve citizens' intention to adopt behaviors aimed at preventing the spread of COVID-19.

[DOI: 10.18502/jhs.v10i3.10517]

2. *Materials and Methods*

The current research was a descriptive study that, based on the protection motivation theory, attempted to design a questionnaire to investigate and determine the influencing factors on the intention to perform preventive behaviors against COVID-19 in Mazandarani laypeople in 2019. This study was conducted in four stages as follows:

1. In the first stage, a literature review was conducted. The review of background studies revealed the first method used to identify the content domain (12), and also yielded assessments of previous global questionnaires used to measure intention to practice preventive behaviors based on PMT. These were obtained using an extended search of databases.

2. In the second stage, a follow-up qualitative study with semi-structured interviews with laypeople was conducted to generate relevant items. After the literature review, the data collected from interviews with the target group were used to generate the instrument items (12, 13). In this regard, a small qualitative study involving seven semi-structured, in-depth interviews with laypeople was conducted to determine their reasons for practicing or not practicing protective behaviors. The participants were invited through social media, and all seven interviews were conducted through phone due to COVID-19's lingering threat and the resulting need to avoid close physical contact with interviewees. At the beginning of each interview, the participants were asked questions about their demographic characteristics. The interviewer (M.K.) followed a guide designed to encourage the participants to talk about their awareness, opinions, and practices regarding COVID-19. They were also asked about environmental and socio-cultural factors that might have affected their behavior during the COVID-19 pandemic. The researchers then focused on each of the stated behaviors, asking the following questions: "What do you think about the risk of developing COVID-19?" "What do you think would happen if you get COVID-19?" "What do you do to prevent the spread of COVID-19?" "What behaviors might prevent COVID-19?" "What factors are associated with behaviors that might prevent COVID-19?" "How do you practice preventive behaviors regarding COVID-19?" The participants then were asked to elaborate on their answers through follow-up questions, e.g.: "What do you mean?" "What should you do?" "Give me an example." "Explain further." Their answers enabled a deeper understanding of their experiences. Each of the phone-based interviews lasted between 20–35 minutes.

3. In the third stage, the interviews were written down on paper and reviewed several times, and the key items were extracted and coded. After repeatedly reviewing the codes, similar items, combinations, and duplicate items were removed. Finally, based on the information obtained from the three mentioned stages, a number of final items were produced and with the opinion of the professors and the content of each item, they became questions in 7 fields including (a) perceived severity; (b) perceived vulnerability; (c) perceived intrinsic rewards; (d) perceived extrinsic rewards; (e) perceived response costs; (f) perceived response efficiency; and (g) perceived self-efficacy. The questionnaire items were generated based on data collected in the content domain, as well as from the WHO's advisory panel on behaviors, to

[DOI: 10.18502/jhs.v10i3.10517]

keep oneself and others safe from COVID-19 (14). The following step began the process of structuring the instrument, in which the items were modified and suitably prepared. All acceptable items were arranged according to an effective procedure (15).

4. In the fourth step, validity and then reliability of this questionnaire was evaluated as follows:

I. Content validity

Qualitative and quantitative approaches were applied to assess the questionnaire's content validity. During the qualitative phase, a panel of experts (n=10) comprising health promotion experts and epidemiologists measured the FAPI-COP questionnaire's content validity, evaluating its phrasing, grammar, wording, item allocation, and measures. During the quantitative phase, the questionnaire's content validity index (CVI) and content validity ratio (CVR) were evaluated. The CVI was assessed by asking the experts to rate each item according to its simplicity, relevance, and clarity (15) on a scale ranging from 1 = not relevant, simple, or clear to 4 = very relevant, simple, and clear. The CVI was measured as the proportion of items on the questionnaire that achieved a rating of three or four (16, 17). The CVR essentiality evaluated each questionnaire items. In measuring the CVR, the specialists rated each item as 1 = essential, 2 = useful but not essential, or 3 = not essential. Based on the Lawshe Table, items with a CVR score of 0.99 or higher were acceptable and remained in the questionnaire (15). (Table 1)

Table 1. The table of minimum acceptable CVR values is designed based on the number of experts participating in the process of validating the questionnaire

Number of Experts	Minimum value of CVR	Number of Experts	Minimum value of CVR
5	0.99	13	0.54
6	0.99	14	0.51
7	0.99	15	0.49
8	0.78	20	0.42
9	0.75	25	0.37
10	0.62	30	0.33
11	0.59	35	0.31
12	0.56	40+	0.29

CVR= Content Validity Ratio

II. Face validity

Both qualitative and quantitative approaches were implemented to measure face validity. Individual phone-based cognitive interviews were then used on a piloted sample (n = 10) to gauge participants' opinions about the questionnaire's items and to ask whether they experienced difficulty or confusion in responding to the items. Then, to determine the percentage of laypeople who recognized items as important or quite important on a five-point Likert instrument, the impact score (importance × frequency) was measured. Items were determined to be suitable if they had an impact score of 1.5 or higher, which equaled a mean rate of 50% and a mean importance of 3 out of 5 (18).

III. Reliability

Internal consistency was evaluated by applying the Cronbach's alpha coefficient to measure the FAPI-COP questionnaire's

[DOI: 10.18502/jhs.v10i3.10517]

reliability. Alpha values equal to or greater than .70 were viewed as acceptable (25). Intraclass correlations (ICC) also were assessed to evaluate the questionnaire's stability. The questionnaire was re-administered to 40 citizens in Mazandaran Province two weeks after completion of the first online questionnaire through the shared link for the online questionnaire on social networks (i.e., WhatsApp, Telegram, and Instagram). ICC values equal to or greater than 0.40 are viewed as satisfactory: r's 0.81–1.0 = excellent; 0.61–0.80 = very good; 0.41–0.60 = good; 0.21–0.40 = fair; and 0–0.20 = poor) (25). The analyses were conducted using SPSS Software, Version 24. The FAPI-COP questionnaire's final version is provided in Appendix 1.

The items were rated on a five-point Likert scale anchored at the extremes–one=completely agree to five=completely disagree–for seven dimensions, including perceived threat, response costs, response efficacy, rewards, efficacy, and behavioral intention. The behavioral responses dimension was scored as 1=never to 5=always. Higher scores indicated greater intention to prevent COVID-19. Since 11 items were worded negatively (Items 2, 4, 5, 6, 7, 8, 9, 10, 17, 18, and 19), they were reverse-scored.

3. Results

The initial questionnaire of this study included 76 questions, which then were revised so that the participants would be comfortable responding to them. The chief researcher (M.K.) and other team members read the items and deleted additional items. An expert panel comprising a health education and health promotion specialist, an environmental health specialist, a nurse, a psychologist, and a general practitioner assessed the 66 items, and 13 were omitted based on the panel's recommendations. They retained 53 items that then were referred to another expert panel that comprised a health education specialist and an environmental health specialist in Iran. Two items were deleted based on the suggestions from this expert panel. The first draft of the questionnaire was developed, containing 51 items. Content and face validities then were assessed.

Table 2 shows the demographic characteristics of the studied subjects. The average age of the subjects was 44.57± 13.48 years, and 55% of them were women and the rest were men.

Table 2. Demographic characteristics of the studied subjects

Variables		M± SD (N=40)
Age		44.57± 13.48
Marital Statue	Single	7 (17.5)
	Married	33 (82.5)
Level of Education	Under diploma	5 (12.5)
	Diploma	13 (32.5)
	Upper diploma	22 (55)
Gender	Man	18 (45)
	Woman	22 (55)

[DOI: 10.18502/jhs.v10i3.10517]

Content validity

During the quantitative measurement of the questionnaire, items with a CVR and CVI greater than 0.99 and 0.80 were retained, respectively. Altogether, 12 items were removed, resulting in a pool of 39 items. The expert panel also revised the wording, item allocation, and grammar in the questionnaire. Table 3 of minimum acceptable CVR values is designed based on the number of experts participating in the process of validating the questionnaire.

Table 3. The final questionnaire to investigate the effective factors in person' intention of COVID-19 prevention (FAPI-COP)

N	Item	CVI	CVR
1	Like all people in the world, I may become infected by COVID-19.	0.916	1
2	The CoVID-19 disease can lead to death because there is no definitive cure for it.	0.966	1
3	I may even get COVID-19 by contact with surfaces (e.g., at a shopping center, gas station, etc.).	0.933	0.8
4	Unless God desires and it is my destiny, I will not be infected by COVID-19.	0.941	1
5	The COVID-19 is deadly because of the lack of a definitive treatment.	0.933	1
6	The problems caused by COVID-19 (e.g., lung, heart, etc.) persist for a long time.	0.908	0.8
	Fears	0.958	1
7	I am afraid of losing my family because of COVID-19.		
8	When I touch different surfaces (e.g., elevator door, shopping center, gas station, etc.), I become anxious that I will be infected by COVID-19.	1	1
9	I am afraid of even going out of the house for essential work because of COVID-19.	0.991	1
10	I am very worried about being hospitalized for many days because of COVID-19	1	1
	Perceived response costs		
11	Regular washing of hands for at least 20 seconds outside the home is difficult and time-consuming.	0.991	1
12	Buying masks, gloves, and disinfectants causes financial problems for me.	0.95	0.8
13	The regular use of gloves during the day makes my hands sweat.	0.90	0.8
14	It is difficult to breathe with a mask.	0.991	0.8
15	Regular hand washing and disinfection may exacerbate my skin allergies.	0.941	1
16	Staying at home and being in quarantine for a long time makes me depressed.	0.941	1
	Rewards		
17	Traveling and going out improves my mood during the stressful days of the COVID-19 outbreak.	0.941	1
18	Shaking hands and hugging others makes me feel intimate during the COVID-19 outbreak.	0.983	1
19	Eating ready-made meals outdoors is more enjoyable and more comfortable than home-cooked food, even during the COVID-19 outbreak.	0.958	1
	Perceived response efficacy		
20	Washing hands with soap and water for at least 20 seconds is an excellent way to prevent infection by COVID-19.	0.958	1
21	Wearing masks and gloves outdoors and in crowded places prevents the spread of COVID-19.	0.983	1
22	Maintaining at least 1.5 meters of distance between myself and others helps break the COVID-19 transmission chain.	0.90	1
23	Disinfecting surfaces and equipment at home and in the workplace protects against COVID-19.	0.975	1
	Behavioral intention		
24	I plan to disinfect all foodstuffs that I buy outside the home before consuming them.	0.891	0.8
25	I intend to maintain at least 1.5 meters of distance between myself and others at all times.	0.958	0.8
26	I intend to keep in touch with family and friends through social media as long as there is a risk of getting COVID-19.	0.958	1
27	I plan to heat food and bread well before eating.	0.991	1
	Perceived self-efficacy		
28	I wash my hands before touching my face and after touching surfaces, even if it is sometimes tricky.	0.966	1
29	If I have any symptoms, such as fever, shortness of breath, or cough, I can immediately go to the hospital or see a doctor.	0.921	0.8
30	I can prevent myself from getting COVID-19 through wearing masks and gloves every time I leave home, without exception.	0.994	1
31	Even if I lose professional and social support, I still avoid close contact with a large number of persons.	0.991	0.8
	Behavioral responses		
32	I regularly wash my hands with soap and water for at least 20 seconds, and I clean them with an alcohol-based hand sanitizer when they are exposed to different surfaces.	0.941	1
33	I throw away dirty gloves and masks after use, following the safety advice of experts.	0.958	0.8
34	I regularly and thoroughly disinfect all surfaces that I touch (e.g., home, car, work, pedestrian card, mobile phone, etc.).	0.941	1
35	I cover my nose and mouth with a mask, tissue paper, or bent elbow whenever I feel the need to sneeze or cough.	0.983	1
36	I always change my clothes before entering the house because of COVID-19.	0.991	1

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Face validity

To sum up, three items had impact scores lower than 1.5, with the scores ranging from 1.6–5. The first form of the FAPI-COP questionnaire, which comprised 36 items, was confirmed for use during the next stage of the psychometric assessment. In other words, the results indicated that the sample of laypeople did not experience problems in reading and understanding the 36 items on the questionnaire.

Reliability

Cronbach's alpha was applied separately to the FAPI-COP questionnaire and to each dimension of the questionnaire to assess internal consistency. The Cronbach's alpha coefficients range for the questionnaire's dimensions was 72–0.84, which exceeded the acceptable threshold. Furthermore, a test-retest analysis was applied to assess the questionnaire's stability, and the results indicated a satisfactory threshold. ICCs range was 0.80–0.99 for the questionnaire's dimensions, which supported its stability. The results are presented in Table 4.

Table 4. Measures of the internal consistency and intraclass coefficient (N=40)

Factor	The name of the factor	Number of items	Cronbach's alpha	ICC
1	Perceived threat	6 items (1-6)	.80	.80
2	Behavioral responses	5 items (32-36)	.72	.92
3	Perceived response costs	6 Items (11-16)	.79	.97
4	Fears	4 items (7-10)	.80	.90
5	Perceived response efficacy	4 Items (20-23)	.83	.87
6	Rewards	3 Items (17-19)	.84	.92
7	Perceived self-efficacy	4 items (28-31)	.84	.96
8	Behavioral Intention	4 items (24-27)	.84	.99
Total		36 items	.78	.95

4. Discussion

In the present study, the researchers defined the development and psychometric properties of a new questionnaire, FAPI-COP, to measure factors that affect personal intentions to adopt preventive behaviors in response to COVID-19. This project was the first effort of its kind in the world to develop an instrument to assess factors that influence personal intentions regarding COVID-19 prevention. The content of questionnaire items was first developed based on the literature review, interviews with laypeople, and interviews with experts to ensure that the instrument included all theoretical concepts linked to protection motivation theory (PMT). One approach to questionnaire design, particularly in the area of preventive behavior, is the use of motivational theories, such as PMT. Overall, PMT provides a theoretical structure for evaluating preventive behaviors and can be applied to describe behaviors associated

[DOI: 10.18502/jhs.v10i3.10517]

with threats, coping, health risks, and behavioral intentions. PMT's key constructs are based on concepts, such as perceived severity and vulnerability, intrinsic and extrinsic rewards, perceived response efficacy, and perceived self-efficacy, and perceived response costs. The assessment of theoretical constructions is one of the most challenging and necessary components in the study of theory-based health education and promotion (8).

By knowing cognitive-behavioral principles, the factors that influence the adoption of preventive behaviors can be recognized and applied in intervention research. In the current project, the PMT components were measured using a complex technique. These components are one of the most common reasons for the prevention of disease because people might consider themselves at risk of possible disease. PMT emphasizes training for decision making by measuring the risks of diseases and benefits from protection, and by motivating people to take protective actions against diseases. The results from research based on PMT may be applied to reform existing postoperative recommendations (8). Thus, according to these previous reports, PMT could be applied in designing intervention programs. Overall, the findings of the present study indicated that the FAPI-COP questionnaire's psychometric properties were satisfactory. The CVI and CVR indicated that the questionnaire's content validity was sensible.

In the present study, various theoretical constructs of PMT that could be involved in practicing preventive and protective behaviors against COVID-19 were identified and validated as FAPI-COP questionnaire constructs. Generally, healthy behavioral theories can support the classification of factors involved in protective behaviors to design health promotion programs.

Both response efficacy and self-efficacy were considered under coping appraisal in the PMT. Response efficacy argues for coping responses' effectiveness in decreasing threats. Overall, self-efficacy includes the person's perceived capability to execute a coping response. Available coping strategies are effective in the adoption of protective behaviors. High response efficacy reinforces self-protection and belief in protective behaviors' effectiveness (20, 21). The health issue influences coping approaches or effect sizes of threats to some degree. Generally, higher self-efficacy can advance preventive behaviors in at-risk people (22, 23). Moreover, health promotion plans, with the purpose of improving self-efficacy in COVID-19 preventive behaviors, may progress preventive behaviors and encourage social health. Being conscious of inconsistent behavioral rewards is more significant than the perceived cost of healthy behaviors. Based on earlier studies on the COVID-19 pandemic, the psychological consequences of home quarantine and social restrictions can include depression, fear, and anxiety, which can exert harmful influences on protective behaviors (24).

The reliability of the final questionnaire was confirmed with Cronbach's alpha coefficient of 0.78 and intraclass correlation coefficient of 0.95. Many studies also confirmed Cronbach's alpha coefficient between 0.72-0.94

Limitations

Although the present study had several strengths, it also had the following

[DOI: 10.18502/jhs.v10i3.10517]

limitations. First, it was conducted just among a sample of people in Mazandaran Province in northern Iran to assess their intention regarding COVID-19 prevention. Thus, caution should be used in generalizing our results to other populations and geographical locations. Consequently, further research may be needed to support the theory-based questionnaire's applicability as a fully confirmed, applied, and useful measure in the Iranian context. Second, the Cronbach's alpha coefficients of some factors were not satisfactory, and further research is needed to overcome this limitation. The third limitation concerned the respondents' truthfulness and the questionnaire's self-reporting approach. The current sample was limited to 720 laypeople, and it was not certain whether the same results could be obtained if a larger sample was used.

Fourth, the present study included only people who were able to access the online link to the questionnaire and complete the questionnaire online. Many populations may not have access to smartphones or the Internet to complete a questionnaire. Furthermore, in future studies, a larger sample should be used to test whether the instrument's psychometric properties hold an alternative measure of reliability and validity (e.g., test-retest validity). However, the notion that these factors (adapted from the PMT) work in predicting protective behaviors against COVID-19 was discounted. Meanwhile, the fact that all the factors would help predict preventive behaviors cannot be taken for granted. At the same time, other constructs that are not considered in the model (e.g., trust in science and in the government, etc.) could be relevant. A future study could examine other structures.

To sum up, a main objective of this study was to improve people's intentions regarding COVID-19 prevention; thus, we developed the FAPI-COP questionnaire, which, based on our analyses, comprises acceptable psychometric properties.

5. Conclusion

The FAPI-COP questionnaire indicated solid validity overall, and most content domains demonstrated high internal consistency and reliability. Thus, based on the present study's results, it was concluded that the theory-based questionnaire is valid and reliable for use in measuring the factors that influence personal intentions regarding COVID-19 prevention. Furthermore, the questionnaire's Iranian version may help healthcare workers plan health strategies that effectively target particular population groups. Further studies are suggested to identify the questionnaire's strengths and weaknesses when it is administered in other contexts.

Declarations

Abbreviations

BR: Behavioral responses; FAPI-COP: Factors Affecting Person's Intention of COVID-19 Prevention; PMT: Protection motivation theory; PT: Perceived threat; PRC: Perceived response cost; PRE: Perceived response efficiency; PSE: Perceived self-efficacy; Fe: Fears; Re: Rewards; BI: Behavioral intention; CVI: Content validity index; CVR: Content validity ratio; ICC: Intraclass correlation coefficient.

[DOI: 10.18502/jhs.v10i3.10517]

Ethics approval and participants' consent

The Medical Ethics Committee at the Mazandaran University of Medical Sciences [IR.MAZUMS.REC.1398.1421] approved the study. In the preliminary section of the online survey, we included information about the project (i.e., justification, purpose, and methods) and the participant's right to withdraw at any point. Furthermore, we explained that their privacy and confidentiality would be maintained. All data were preserved based on the Iranian legislation on data protection. Only the main researcher (M.K.) had access to the raw data collected from the online survey platform. The initial database was transferred to an SPSS database, and only the principal researcher had access to the SPSS database used in the data analysis. At the beginning of the online questionnaire, all participants marked a box that stated, "I accept to take part in the project described above and provide my consent for my answers to be used with study aims." The responses to the FAPI-COP questionnaire were anonymized. No personal information could be linked to the participant's responses to the questionnaire. The records of consent did not include the participants' identities. Thus, the rights and interests of all participants in the present study were protected.

Consent for publication

Not applicable.

Availability of data and materials

The datasets produced and analyzed throughout the current study are not publicly available because of the need to maintain the participants' privacy. However, on reasonable request, they may be available from the corresponding author.

Funding

No external funding sources were provided for this manuscript.

Authors' contributions

M.K. designed the project, collected the data, conducted the statistical analysis, and wrote the first draft of the manuscript. A.N and T.P participated in collecting the data. K.P. contributed to the statistical analyses. M.K. and K.P. critically revised the final draft of the article. The author read the final draft and agreed to be accountable for all aspects of the work and for ensuring that questions related to the accuracy or integrity of any part of the work would be appropriately investigated and resolved.

Acknowledgments

We would like to thank the citizens of Mazandaran for their participation in our study. We thank the panel experts; without whose support the present study could not have been performed. The authors are thankful for the support of the Deputy of Research and Technology at Mazandaran University of Medical Sciences (MAZUMS).

Conflict of interest

None declared.

[DOI: 10.18502/jhs.v10i3.10517]

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[DOI: 10.18502/jhs.v10i3.10517]