ORIGINAL ARTICLE

Determinants of Adherence to Covid-19 Preventive Behaviors Based on an Extended Parallel Process Model: A Cross-Sectional Study

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Abstract

Background: The pneumonia associated with Coronavirus (COVID-19) appeared in Wuhan, China, and it quickly spread to other countries worldwide. In addition to physical damage, the virus adversely affects the mental health of the community. The aim of this research was to identify the factors influencing adherence to Covid-19 preventive measures, utilizing the Extended Parallel Process Model as a basis.

Methods: The cross-sectional investigation comprised all men and women from the community as its study population, and the participants were randomly selected. Data were collected using an online questionnaire developed by the researcher, grounded in the Extended Parallel Process Model. The questionnaire's external consistency (R=0.78, P=0.01) and internal consistency (Cronbach's alpha>0.7 for each concept) were both acceptable. SPSS27 was used to analyze the data.

Results: Participants in the study included 1193 individuals (58.4% female), with an age range of 15 to 80 years old and a mean age of 36.79±10.43 years. Women had higher mean scores for perceived response efficiency, self-efficacy, and preventive behaviors compared to men (P<0.001). The average scores of the EPPM model components demonstrated a strong correlation with the average scores of behaviors which aimed at preventing COVID-19. The most influential factor in determining the performance of health behaviors was perceived self-efficacy.

Conclusion: Health education interventions should prioritize enhancing perceived self-efficacy and response efficacy over concentrating solely on disease incidence and mortality.

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Introduction

The worldwide health sector has experienced three outbreaks of coronavirus in under two decades. In 2002, the SARS coronavirus appeared for the first time, followed by MERS in 2012, and in 2019 COVID-19 emerged in Wuhan, China, causing a cluster of acute respiratory illnesses.[1-3]

Because COVID-19 is transmitted through respiratory droplets and direct contact from person to person, and in the case of insufficient knowledge about other routes of virus transmission and pharmacological treatments for the disease,[4] various strategies to reduce person to person contacts were recommended to control the spread of the disease, from the beginning of the pandemic; they included extensive lockdowns, quarantine, and isolation of patients along with personal hygiene measures such as regular handwashing, covering the mouth and nose with a mask, wearing gloves and cough etiquette, disinfecting surfaces, avoiding crowds and sick individuals, and staying at home and social distancing.[5-8] These precautionary measures were communicated to the public through various media and social networking campaigns to encourage people to adopt these behaviors. Many of these behaviors are still recommended after vaccination in many countries.[9]

Human behaviors play a fundamental role in preventing person-to-person transmission of many pathogens, especially viruses. Evidence suggests that widespread compliance with regulations and adherence to recommended health behaviors have a significant impact on reducing the spread of disease.[10] However, violating recommended health behaviors was one of the major challenges in controlling the COVID-19 epidemic.[11] It is necessary to carry out effective and successful educational interventions to change people's behaviors. To develop such interventions, it is important to have a proper understanding of the factors affecting acceptance and adherence to these behaviors. To this end, a range of behavior change models, like the health belief model, the Theory of Protection Motivation with the Planned Behavior Theory, which focus on people's health-related beliefs and their expectations of the effectiveness of these behaviors, have been used to explain COVID-19-preventing health behaviors.[12-16]

The Extended Parallel Process Model (EPPM) is a widely utilized framework for predicting health-related behaviors. This paradigm is commonly used to comprehend various health practices in the context of risks and illnesses.[17, 18] The relationships between emotions (perceived risk) and reason (perceived efficacy) in behavioral decision-making are highlighted by this paradigm. Risk perception consists of two constructs: perceived susceptibility (the likelihood of getting the disease) and perceived severity (the negative consequences of the disease). Perceived efficacy also includes two constructs: perceived self-efficacy (belief in one's ability to carry out suggested actions) and perceived response efficacy (belief about the effectiveness of the recommended behavior in preventing disease or its negative consequences). According to the model, if people have a sense of risk, they will evaluate their level of efficacy. This gives rise to three distinct reactions: danger-controlled, nonreactive, or fear-based. The way these three reactions interact determines the intents and actions that follow.[19, 20]

In February 2020, Iran reported its first COVID-19 instances.[21] It has been one of the countries with the highest incidence rate and deaths in the Eastern Mediterranean region and the world[3] despite the widespread educational interventions conducted through different media, social network campaigns, or web-based materials. Previous research has primarily focused on other countries, and there is a lack of data concerning Iran. Therefore, the existing gap in the research is the insufficient information on how the Iranian population responds to COVID-19 health messages. This study aimed to fill that gap. Thus, we aimed to identify the factors influencing adherence to COVID-19 preventive behaviors using an extended parallel process model as its foundation, and it employed a cross-sectional design.

Methods

The current study utilized a cross-sectional design. A population-based sampling method was employed to obtain a representative sample of the Iranian population. Participants were randomly selected from all provinces across the country to ensure geographical diversity. Data were collected using an online questionnaire. The goal of our sampling was to be representative of the Iranian general population. Participants could qualify if they were at least 15 years old, could read Farsi, and had a smartphone and a WhatsApp account with access to the Internet.

A total of 1,193 participants completed the online questionnaire, and Power analysis was used to determine the sample size. This analysis aimed to ensure that the sample size was sufficient to detect statistically significant differences with a 95% confidence level and 80% power. The questionnaire contains 43 items and consists of two sections: (1) Demographic Information (gender, age, educational level, and field of education), (2) Perceived susceptibility (5 questions), perceived severity (4 items), perceived response efficacy (10 items), perceived self-efficacy (10 items), and Covid-19 preventive actions (7 things) are among the variables on the questionnaire used to forecast protective actions using the Extended Parallel Process Model (EPPM). The perceived severity and susceptibility for each component were evaluated using a 5-point Likert scale, which ranged from "strongly disagree" to "strongly agree", "to a great extent - not at all" for perceived response efficacy, and "Never-always" for behaviors.

The research team developed all the questionnaire items. A panel of ten experts, including PhDs in public health, health promotion, and education, confirmed the questionnaire's content validity. They employed the Delphi method to extract the initial questionnaire items. This iterative process involved multiple rounds of feedback to refine the questions and ensure their relevance and clarity. Based on Lawshe's criteria[22] and Waltz and Bussel's criteria,[23] all items achieved a content validity index (CVI) greater than 0.85 and a content validity ratio (CVR) greater than 0.75. Cronbach's alpha (>0.70) was used to determine the questionnaire's internal consistency for each component. A test-retest Pearson correlation analysis (N=30, R=0.78, P=0.01) was used to evaluate the external consistency.

In accordance with Kim Witte's guidelines,[24] the perceived threat score was calculated by adding the perceived susceptibility and severity scores, while the perceived efficacy score was a combination of the perceived response efficacy and self-efficacy scores. The standardized threat sum for each participant was deducted from the standardized efficacy sum to provide a discriminating value that allowed for the separation of individuals using danger control from those using fear control. A positive score shows the person has utilized the danger control method, while a negative score indicates they have employed the fear control method. The average scores for the efficacy items were subtracted from each efficacy item score, and then the standard deviation of the efficacy scores was used to standardize the efficacy and threat item scores. Threat scores were standardized using the same process. Based on perceived efficacy and felt threat, four profiles tailored to specific scenarios for the EPPM were created. To reach this objective, we utilized the median value for each construct to determine the low and high levels of perceived threat and efficacy.

The four EPPM categories were established, which are low threat and efficacy (LT/LE), low threat and high efficacy (LT/HE), high threat and low efficacy (HT/LE), and high threat and efficacy (HT/HE).

Descriptive statistics were presented as a number (%). The Kolmogorov-Smirnov test was used to evaluate and confirm the normality of the outcome variables. Additionally, the mean scores of the EPPM constructs were compared based on the demographic characteristics of the respondents using independent t-tests and one-way ANOVA. When necessary, non-parametric alternatives to the Kruskal-Walli's test (ANOVA) and Mann-Whitney U test (t-tests) were also utilized.

The association between the overall score of preventive behaviors and EPPM components and demographic characteristics was assessed using Pearson's correlation coefficient analysis. To evaluate the factors influencing preventive actions, we used a univariate linear regression analysis with the stepwise method in different demographic variable subcategories.

The Chi-square test was used to evaluate the relationships between the categories of respondents' demographic features, the frequency distribution of the four classes (LT/LE, HT/LE, LT/HE, and HT/HE), and the two processes engaged (danger control and fear control). The respondents' preventative behavior responses were classified as "usually" or "occasionally," and univariate logistic regression was used to determine the impact of the various EPPM categories (LT/LE, HT/LE, LT/HE, and HT/HE) on the seven health behaviors evaluated.

SPSS 27 software was utilized for conducting statistical analyses. A p-value below 0.05 was considered to be statistically significant. The current study protocols were approved by the Ethics Committee of Shiraz University of Medical Sciences (IR.SUMS.REC.1399.087). The survey was confidential, and all respondents were assured that they could withdraw from the study at any time they wished, the data would only be viewed by the researchers, and findings would be shared collectively.

Results

The study involved 1193 participants, comprising 41.6% males and 58.4% females. The mean age of the participants was 36.79 years, with a standard deviation of 10.43 years, and their ages ranged from 15 to 80 years. Table 1 presents the frequency distribution of participants based on demographic variables, along with the mean and standard deviation of the EPPM construct scores for each demographic subgroup.

As shown in Table 1, Women scored significantly higher on average in perceived response efficiency, perceived self-efficacy, and COVID-19 preventive behaviors compared to men (P<0.001). In ANOVA, significant differences were observed between age groups in all EPPM constructs except perceived severity; also, in the Bonferroni post hoc test, in all cases, the mean scores of constructs in the age group under 25 years were significantly less than the other two groups. The mean score of perceived severity of the participants who were educated in medicine and health fields was significantly lower than that in other fields. When compared to participants with higher education levels, individuals with merely basic education levels had substantially poorer reported response efficacy and perceived self-efficacy (k–12 levels of education).

In relation to preventing COVID-19, the mean score of behaviors among men was significantly lower than in women (P<0.001), and compliance with preventive measures among individuals under 25 was lower compared to other age groups (P=0.002). In other subcategories of demographic variables, there were no notable variations seen in the COVID-19 preventative behaviors practiced.

Table 1: Compared mean (SD) scores of EPPM constructs and COVID-19 preventive behaviors by demographic variables

Demographic variables		N (%)	Perceived susceptibility	Perceived severity	Response efficacy	Self-efficacy	Perceived threat	Perceived efficacy	Behavior
Total		1193 100)	19.09 (3.69)	12.11 (3.46)	44.01 (4.99)	41.93 (6.30)	31.21 (6.08)	85.91 (9.91)	41.66 (6.48)
Sex	Male	496 41.6)	18.88 (4.15)	12.03 (3.19)	43.09 (5.70)	40.51 (6.73)	30.91 (6.06)	83.56 (10.86)	40.38 (6.88)
	Female	697 58.4)	19.26 (3.32)	12.16 (3.63)	44.65 (4.30)	42.73 (5.78)	31.43 (6.09)	87.57 (8.81)	42.56 (6.02)
P (independent T test)			0.080	0.526	<0.001	<0.001	0.149	<0.001	<0.001
Age	<25 years	161 13.5)	18.00 (3.67)	11.97 (3.79)	42.79 (5.55)	40.17 (6.67)	29.97 (6.51)	82.96 (11.03)	39.98 (6.62)
	25-50 years	910 76.3)	19.27 (3.74)	12.15 (3.48)	44.28 (4.84)	42.16 (6.32)	31.43 (6.11)	86.42 (9.71)	41.90 (6.56)
	>50 years	122 10.2)	19.27 (3.09)	11.98 (2.81)	43.61 (5.03)	42.52 (5.29)	31.25 (5.09)	86.08 (9.13)	42.05 (5.30)
P (One way ANOVA)			<0.001	0.745	0.001	0.001	0.019	<0.001	0.002
Field of education	Medicine and health	365 30.6)	18.85 (3.37)	11.74 (3.52)	44.27 (4.34)	42.17 (6.37)	30.58 (5.95)	86.42 (9.23)	41.92 (6.35)
	Others	828 69.4)	19.21 (3.82)	12.27 (3.42)	43.89 (5.24)	41.82 (6.27)	31.49 (6.12)	85.69 (10.19)	41.54 (6.53)
P(independent T test)			0.117	0.013	0.241	0.369	0.018	0.244	0.353
Education level	Basic education	207 17.4)	18.73 (3.94)	12.54 (3.59)	43.08 (6.60)	41.03 (7.15)	31.29 (6.59)	84.08 (11.91)	41.04 (7.13)
	Higher education	986 82.6)	19.17 (3.63)	12.01 (3.42)	44.19 (4.56)	42.11 (6.10)	31.19 (5.97)	86.29 (9.39)	41.28 (6.33)
P (independent T test)			0.116	0.057	0.004	0.025	0.826	0.004	0.139

Table 2: Correlation coefficients between EPPM constructs and COVID-19 preventive behaviors

Demographic Variable		Perceived susceptibility	Perceived severity	Response efficacy	Self-efficacy
Total		0.421 **	0.107**	0.491**	0.679**
Sex	Male	0.414**	0.034	0.441**	0.712**
	Female	0.424**	0.158**	0.520**	0.627**
Field of education	Medicine and health	0.412**	0.091	0.486**	0.597**
	Others	0.427**	0.118**	0.494**	0.714**
Education level	Basic education	0.519**	0.167*	0.384**	0.669**
	Higher education	0.394**	0.095**	0.529**	0.680**
Age	<25 years	0.470**	0.010	0.594**	0.723**
	25-50 years	0.398**	0.108**	0.467**	0.676**
	>25 years	0.483**	0.304**	0.485**	0.563**

**Correlation is significant at 0.01 level (two tailed); *Correlation is significant at 0.05 level (two tailed)

The COVID-19 preventive behaviors mean score and the EPPM model components mean score both indicated significant positive relationships in all demographic variable subcategories and total scores, according to Pearson's correlation analysis. The only exception was the mean score of perceived severity, which did not show a significant relationship in men, participants in the "medicine and health" education field, or the age group under 25. As can be seen in Table 2, the strongest correlation relationship was related to perceived self-efficacy and response efficiency, respectively, and perceived severity had the weakest correlation relationship with behavior.

In linear regression analysis, perceived self-efficacy had the greatest predictive power to predict health behaviors in the total score and all subcategories of demographic variables. Perceived severity was not included in any of the regression models (Table 3).

Out of all the participants, 52.6% were actively involved in danger control, whereas 47.4% were engaged in fear control. Table 4 illustrates the frequency distribution of the study participants regarding risk control and fear control processes, as well as the four subgroups: LT/LE, LT/HE, HT/LE, and HT/HE.

After dichotomizing the behavior score, the logistic regression test showed that people in the three HT/LE, LT/HE, and HT/HE groups had an increased likelihood of practicing preventive measures against COVID-19 than the LT/LE group. This chance was higher for all health behaviors in the HT/HE groups except cough etiquette, indoor ventilation, and proper disposal of face masks and tissues, for which the LT/HE groups had the highest change of performing the behavior (Table 5).

Table 3: Linear regression analysis of COVID-19 preventive behaviors

Demographic variable		Perceived susceptibility B (sig.)	Response efficacy B (sig.)	Self-efficacy B (sig.)	R^2
Total		0.159(<0.001)	0.150(<0.001)	0.538(<0.001)	0.506
Sex	Male	0.136(<0.001)	0.074(0.045)	0.616(<0.001)	0.527
	Female	0.179(<0.001)	0.222(<0.001)	0.449(<0.001)	0.474
Field of education	Medicine and health	0.172(<0.001)	0.227(<0.001)	0.426(<0.001)	0.435
	Others	0.151(<0.001)	0.109(<0.001)	0.594(<0.001)	0.544
Education level	Basic education	0.284(<0.001)	-	0.544(<0.001)	0.511
	Higher education	0.121(<0.001)	0.196(<0.001)	0.529(<0.001)	0.511
Age	<25 years	0.155(0.011)	0.177(0.013)	0.548(<0.001)	0.574
	25-50 years	0.153(<0.001)	0.147(<0.001)	0.546(<0.001)	0.499
	>25 years	0.229(<0.001)	-	0.431(<0.001)	0.393

Table 4: Associations of participants' demographic characteristics with threat and efficacy categories and two control processes

Demographic Variable		LT/LE N (%)	LT/HE N (%)	HT/LE N (%)	HT/HE N (%)	Sig. (chi²)	Danger control N (%)	Fear control N (%)	Sig. (chi²)
Total		404(34.2)	205(17.4)	239(20.3)	332(28.1)	-	621(52.6)	559(47.4)	-
Sex	Male	195(40.0)	71(14.5)	118(24.2)	104(21.3)	<0.001	230(47.1)	528(52.9)	0.001
	Female	209(30.2)	134(19.4)	121(17.5)	228(32.9)		391(56.5)	301(43.5)	
Field of education	Medicine and health	135(37.3)	68(18.8)	71(19.6)	88(24.3)	0.183	121(58.3)	151(41.7)	0.006
	Others	269(32.9)	137(16.7)	168(20.5)	244(29.8)		410(50.1)	408(49.9)	
Education level	Basic education	68(33.5)	32(15.8)	46(22.7)	57(28.1)	0.776	98(48.3)	105(51.7)	0.097
	Higher education	336(34.4)	173(17.7)	193(19.8)	274(28.1)		523(33.6)	453(46.4)	
Age	<25 years	77(47.8)	25(15.5)	36(22.4)	23(14.3)	0.001	78(48.4)	83(51.6)	0.381
	25-50 years	286(31.8)	159(17.7)	179(19.9)	275(30.6)		475(52.8)	424(47.2)	
	>25 years	41(34.2)	21(17.5)	24(20.0)	34(28.3)		68(56.7)	52(43.3)	

Table 5: The relationship among the categories of the Extended Parallel Process Model and different preventive behaviors

Behavior	HT/LE		LT/HE		HT/HE	
	OR (95% CI)	Sig.	OR (95% CI)	Sig.	OR (95% CI)	Sig.
Wearing mask	1.79(1.27-2.51)	0.001	3.53(2.48-5.02)	<0.001	5.32(3.88-7.29)	<0.001
Wearing Gloves	1.64(1.18-2.23)	0.003	5.48(3.75-7.99)	<0.001	7.12(5.08-9.98)	<0.001
Regular handwashing	1.24(0.72-2.12)	0.439	6.29(2.23-17.77)	0.001	8.19(13.22-20.90)	<0.001
Using hang sanitizers	1.30(0.93-1.83)	0.128	4.41(2.75-7.06)	<0.001	5.88(3.84-9.01)	<0.001
Disinfecting surfaces	1.36(0.98-1.89)	0.070	5.39(3.39-8.56)	<0.001	7.54(4.94-11.52)	<0.001
Avoiding crowds	1.38(0.95-1.99)	0.088	4.04(2.41-6.78)	<0.001	9.37(5.27-16.68)	<0.001
Social distancing	1.37(0.95-1.97)	0.093	3.64(2.23-5.95)	<0.001	6.17(3.81-9.98)	<0.001
Cough etiquette	1.35(0.81-2.26)	0.247	7.59(2.71-21.27)	<0.001	7.01(3.14-15.84)	<0.001
Indoor ventilation	2.11(1.34-3.31)	0.001	4.29(2.23-7.89)	<0.001	3.16(2.01-4.96)	<0.001
Proper dispose of face masks and tissues	0.81(0.57-1.16)	0.252	4.49(2.50-8.08)	<0.001	2.62(1.74-3.95)	<0.001

Discussion

This study was conducted at the beginning of the COVID-19 outbreak in Iran, a time when significant alterations in personal and social behaviors were advised to manage and curb the transmission of the virus. The study aimed to discover the factors associated with COVID-19 prevention practices among Iranians.

A total of 1,193 individuals aged between 18 and 80 participated in the research. Women scored higher than men on average in perceived response efficacy, perceived self-efficacy, and COVID-19 preventive behaviors (P<0.001). This finding aligns with the results of Bashirian et al. (2021),[19] Raude et al. (2020),[4] and Shahnazi et al. (2020)[25] but contradicts the conclusions of Shirahmadi et al. (2020).[26] Additionally, it was found that the mean scores of EPPM constructs for individuals under 25 were significantly lower than those in the other two age groups. Consistent with these results, Raude et al. (2020)[4] reported that the mean score of all EPPM constructs was significantly higher in older people, but in the study conducted by Khazaei et al. (2020),[27] perceived susceptibility and perceived response efficacy were not significantly different between age groups, while perceived severity in 50–60-year-old subjects was lower than in other age groups, and the highest self-efficacy was seen in the 50–60-year-old group.

Despite Jahangiry et al.'s (2020)[7] results, which showed that in lower education levels, self-efficacy was significantly higher, and response efficacy was significantly lower than in higher education level groups, in this research, individuals who have only completed basic education demonstrate notably lower levels of perceived response efficacy and perceived self-efficacy (k–12 levels of education). The mean score of perceived severity of the participants who were educated in medicine and health fields was significantly lower than that in other fields. The authors did not find any similar studies comparing the results based on this variable.

Regarding COVID-19, compliance with preventive measures was notably lower among men and individuals under 25, aligning with the findings of several other studies.[4, 7, 25, 28]

In Pearson's correlation analysis, the most significant correlation with COVID-19 preventive behaviors was found in perceived self-efficacy and response efficacy, while perceived severity showed the weakest correlation with these behaviors. These findings were in line with the studies by Prasetyo et al. (2020),[29] Nazione et al. (2021),[6] khazaei et al. (2020),[27] and Raude et al. (2020).[4] In the present study, consistent with Nazione et al. (2021)[6] and Rad et al. (2020),[28] perceived self-efficacy emerged as the most significant factor influencing adherence to behaviors that predict COVID-19 outcomes.

Out of all the individuals involved, 52.6% were actively engaged in the danger control process, while 47.4% participated in the fear control process. In the study of Jahangiry et al. (2020)[7] in Iran, these frequencies were 56.4% and 43.6%, respectively. While most of the participants (34.2%) in the current study were in the LT/LE subgroup, more than 90% of those in the study of Shirahmadi et al. (2020)[26] were in the HT/HE subgroup. This may be due to the different study populations. This may be because the study population in Shirahmadi's study was oral health workers, while in the current research, the participants consisted of the general public.

The results showed that in most of the preventive behaviors, the HT/HE groups had the highest chance to adhere to the recommended behaviors, which was consistent with the results of Bashirian et al. (2021).[19] However, in the cases of cough etiquette, indoor ventilation, and proper disposal of face masks and tissues, the LT/HE groups had the highest chance in performing the behavior. It may be because these behaviors are easier to perform, which makes people more committed to them, even with lower levels of perceived threat.

Based on the study findings, several recommendations for public health interventions could be:

Enhance self-efficacy beliefs. Results indicated that women had higher mean scores on both perceived self-efficacy and COVID-19 preventive behaviors compared to men. Therefore, educational programs should focus on boosting self-efficacy beliefs, particularly among men, to encourage their engagement in healthy behaviors.

Increase perceived response efficacy: The study also showed that perceived response efficacy was a strong predictor of preventive behaviors. Hence, educational programs should aim to enhance this belief and the perceived value of responses to increase the individuals' actions against COVID-19.

Focus on high-risk, high-efficacy groups: Individuals with high perceived threat and high response efficacy were most likely to engage in preventive behaviors. Public health efforts should prioritize encouraging and empowering these groups to maximize their impact on controlling the virus.

Consider side effects: Addressing the side effects, such as increased knowledge and awareness among the community about COVID-19 and its public health effects, is also crucial.

Emphasize psychological determinants: By emphasizing the promotion of individuals' beliefs and skills, these recommendations can significantly improve preventive behaviors and control the COVID-19 pandemic. Overall, these recommendations highlight the importance of understanding and addressing psychological factors to effectively promote public health behaviors and mitigate the spread of COVID-19.

Limitations

This study used an online sample, which may be influenced by a possible selection bias because participants needed a WhatsApp account and access to a smartphone to participate. The participants were not proportionally distributed from different provinces of Iran; thus, they may not be representative of the Iranian population. As a cross-sectional survey, it cannot determine causal relationships between the studied variables.

Conclusion

The COVID-19 pandemic has been one of the most important health challenges in the world for the last hundred years. Identifying the factors that increase adherence to preventive behaviors is very important. The current study findings demonstrated that people who had higher perceived self-efficacy, in addition to the high perceived threat, were more likely to follow behavioral recommendations. Therefore, it seems that public health and health promotion professionals should, besides informing people about the incidence and mortality of disease, provide health advice in a way that people in the community feel sufficient confident in their ability to perform these behaviors.

Author's Contribution

Conceptualization: Mk, HH; Data curation: AM; Formal analysis: AM; MK; Funding acquisition: HH; Methodology: MK, HH; Project administration: MK; HH; AM; Visualization: -- Writing - original draft: MK; HH; AM Writing - review & editing: MK; AM; HH

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Conflict of Interest

The authors declared no potential conflicts of interest.

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