

Influence of Personality and Concern for Health Information Privacy on PHR Adoption During COVID-19 Pandemic: An Empirical Investigation

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Research Article

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Abstract

The ongoing COVID-19 pandemic and changes imposed on the population enhanced the disparities among inhabitants' access to healthcare. Personal Health Record (PHR) allows individuals to access, manage, and share personal health-related information besides being active participants in personal care management. The study explores the relationship between personality traits and the threat of COVID-19 as antecedents of individuals' concern for health information privacy (CFHIP) and the subsequent relationship between individuals' CFHIP and behavioral intention to report their personal health information to healthcare providers concerning the use of PHR. This cross-sectional study employed a questionnaire to accumulate data from the individual in Taiwan. 265 valid responses were used for the final analysis. The research framework was evaluated by structural equation modeling (SEM) and represented by Smart-PLS and SPSS. The results suggested the proposed model explains about 64.2% of the variance of behavioral intention ($R^2 = 0.642$). The findings supported that four personality traits: agreeableness, intellect, conscientiousness, neuroticism, and the threat of COVID-19 significantly influenced an individual's CFHIP. But concerning extraversion, an insignificant path coefficient was reported. Additionally, CFHIP mediates the relationship between threat of COVID-19 (PTD) and behavioral intention. Healthcare providers should consider these determinants in improving and endorsing principles concerning PHR adoption.

Introduction

The novel coronavirus (COVID-19) pandemic has swept the globe since December 2019 that has imposed several changes on the general population in many aspects of their lives, including their healthcare behavior. Several countries imposed numerous prevention measures to contain the spread of infectious diseases (i.e., quarantines, nationwide lockdowns, social isolation), significantly influencing individuals' way of living and resulting in several behavioral outcomes [1, 2].

Previous studies explored that monitoring self-care positively impacted healthcare management and provided sustainability to healthcare infrastructure [3, 4]. Though employed measures and vaccination led to initial success, positive cases were under control. However, recent studies have shown the effect could continue for a prolonged duration [1]. Thus, better utilization of information communication technologies (ICTs) might improve consideration and management of specific medical conditions, allowing individuals to be more involved in self-care [3].

Taiwan's government, like other countries, imposed several restrictions, which limited the traditional patients' care, such as face-to-face diagnosis practiced by physicians due to the outbreak of Covid-19 [5]. Innovative healthcare information systems such as PHR can overcome the drawbacks of conventional patient care and support physicians to continue their diagnosis in a secure way using a password-protected secured system [3]. PHR is considered a healthcare information system (HIS) that incorporates individuals' historical and current health information needed to provide and receive better care [3].

PHR allows physicians to exchange messages and information, including encrypted clinical images for diagnostic purposes, provide medication information, and advise managing health conditions tailored to people's individual needs and circumstances [3, 6]. Supportive functionalities of PHR also help individuals improve their care management by keeping and accessing health information more efficiently and effectively [3, 4]. Physicians but patients can also use PHR to track the communication between health professionals to keep symptom diaries, upload relevant documents and biometric data, and access real-time test results [4, 6]. Additionally, the stand-alone nature of PHR makes it sustainably effective during the pandemic [3]. Therefore, PHR is considered one of the potential solutions to revive patients' care safely and securely.

It is well documented that individuals' CFHIP revolves around healthcare technology innovation. As the healthcare organization adopted new technologies for exchanging individuals' health information, the concern for health information privacy started to accelerate [6, 7]. The increasing amount of requests for health information and intentionally or unintentionally disclosing patient information to third parties increases individuals' privacy concerns regarding storage and access to health information. Thus, PHR has triggered a wave of privacy concerns as individuals feel concerned about their privacy by such services to varying degrees.

Personality traits are an individual's consistent personality across circumstances [8, 9]. A review of technology adoption literature [3, 9] recommended that individuals' personality traits significantly influence technology adoption behavior. Thus, considering that personality traits are an important factor influencing a wide variety of human behaviors and choices [6, 8], it is crucial to explore its influences in the context of healthcare technology adoption.

Consecutively, to test the influence of healthcare privacy concern and the threat of COVID-19 (PTD) on individuals' intention to provide personal health information while using PHR. This study explores the effect of individual differences in terms of personality traits on the formulation of concern for health information privacy. Thus, we are confident that the results of this study can provide insights into how individuals can leverage PHR to manage the associated concerns.

Theoretical foundation, research model and hypotheses

Privacy concern and Health information technology

Warren and Brandies [10] defined the need to protect people's rights in their landmark article, The Right to Privacy. Privacy refers to a person's ability to control others' access to their personal information [10]. Privacy is violated when individuals cannot maintain their communication with social and physical environments [8,9]. But, privacy concerns are not a new phenomenon; these incidents repeatedly evolve when an individual perceives a threat from an innovative information technology (IT) that develops the surveillance, storage, retrieval, and communication of personal information [8,9].

With the rapid advancement of healthcare technologies, the exchange of patients' information has been cast out to be more convenient. Healthcare providers have better and more sophisticated ways to access and collect personal health information; therefore, gaining an individual's personal health information has become more accessible [8]. So, privacy concerns about health information accelerate tremendously among individuals as a considerable amount of personal health information is interchanged, stored, and shared. Privacy guidelines and standards, Health Insurance Portability and Accountability Act (HIPAA) were introduced to guarantee individuals their health records are fully protected [8,9]. Despite these attempts, a large number of individuals are still reluctant to take the potential benefits from electronic data exchange due to privacy concerns. According to the study findings by the California Health care Foundation, 67 % of the respondents were "to some extent" or "very concerned" about the privacy of their medical records [9]. Thus, an inclusive interception of the privacy dynamics concerning the digitization of health records can only be achieved by looking at the factors that influence an individual's attitudes toward PHR use.

Big Five Personality Traits

According to previous studies, personality variables are significant in decision-making and information system (IS) literature. They clarify our understanding of individuals' information processing styles, attitudes, and behaviors [11,12,13]. On the other hand, as information technology is becoming more and more personalized [14] nowadays, personality variables can impact how they perceive security [12]. According to the Protection motivation theory (PMT), individuals' personality traits influence their perception of the threat, exploring their attitude toward adoption [11,13,14].

The personality traits are being used in many studies but have led to inconsistent results until the late 1980s. Goldberg [15] proposed the Big Five Framework, including agreeableness, conscientiousness, neuroticism, extraversion, and intellect, collectively accounted for the significant dimensions upon which individuals differ and predicted important outcomes. Previous studies have proposed that personality traits might impact CFIP to investigate consumers' responses to corporate use of their personal information in previous studies [12,14]. Thus, the present study incorporates personality traits with the CFHIP model to investigate and improve the predictability of how individual trait relates to CFHIP in a health information exchange context that requires self-disclosure of personal health information.

Concern for Health Information Privacy

Although PMT has been primarily used to define different health-behavior issues such as cancer or smoking [9], the severity of the threat is directly proportionate to life. Generally, the threat is outlined as a cause of danger and can bring harm either physically or mentally to an individual. That can also be applied to an increasingly personal technology, whose damage or vulnerability can match that of saying a health risk such as stress [16]. In the context of healthcare, the extent healthcare providers collect and store individuals' health information, use that information for other purposes, and allow third parties who are unauthorized to access the information are all likely to contribute to the overall level of CFHIP [8]. In

other words, an individual considers it highly intrusive when he/she perceives that another individual can access his/her health information discreetly. As the collection of health information about individuals becomes a more usual practice for healthcare providers, individuals find it increasingly difficult to protect his/her information from personal privacy intrusions [16]. However, individuals are likely to bother an extensive range of emotional distress, for example, anxiety, worries, and concern, but their usage of technology could reasonably be questioned, becoming more stressful.

In terms of an individual's concern for information privacy (CFIP), a 15-item instrument included four dimensions, collection, secondary use, unauthorized access, and errors, were developed by Smith et al. [12] to measure and identify the multi-dimensional nature of consumer CFIP. This instrument endorses that individuals with considerable information privacy concerns identify that (1) unnecessary data is collected; (2) personal information is exercised for undisclosed purposes; (3) personal information is not satisfactorily protected from unauthorized access; and (4) most of the data is inaccurate [12].

To the best of the authors' knowledge, no study has validated that CFHIP fully mediates the relationship between the threat of COVID-19 and behavioral intention. If the result holds, the healthcare provider can develop strategies and policies to reduce individuals' concerns and improve their behavior to provide personal health information to receive better care. Thus, this current result is significant in the context of HIE, where providing personal health information is indispensable for receiving better treatment.

Perceived threat of COVID-19

According to retrospective studies of the SARS pandemic [17] and the H1N1 pandemic [18], the perceived threat is the most immediate psychological response to emerging infectious diseases. After the outbreak of the COVID-19 pandemic, Xin et al. [17] explored the perceived threat of COVID-19 (PTD) containing three perspectives, namely the likelihood of infection, the severity of the pandemic, and the uncontrollability of the pandemic based on findings from China. Villani et al. [18] found pandemics impact students' psychological well-being. Duan and Zhu [19] indicate the COVID-19 pandemic increases concern and concern related to the use of Health information technology (HIT).

Additional research is needed on how individuals were affected by COVID-19 attributed to reduced motivation for the most part due to concern. Further, the pandemic severity measures substantially impacted individuals' lifestyles, negatively affecting their psychological well-being [20]. Thus, the decline in individuals' motivation could be due to insufficient technological knowledge, support, and unable to understand the prerequisite of HIT. The following hypotheses are proposed giving the research framework in Figure 1.

H₁: Agreeableness positively associates with individuals' CFHIP.

H₂: Intellect negatively associates with individuals' CFHIP

H_{3a}: Neuroticism positively associates with individuals' CFHIP.

H_{3b}: Neuroticism positively associates with individuals' PTSD.

H_{3c}: Neuroticism positively associates with individuals' behavioral intention.

H_{4a}: Conscientiousness positively associates with individuals' CFHIP.

H_{4b}: The conscientiousness positively associates with individuals' PTSD.

H_{4c}: Conscientiousness positively associates with individuals' behavioral intention.

H_{5a}: Extraversion negatively associates with individuals' CFHIP.

H_{5b}: Extraversion positively associates with individuals' PTSD.

H_{5c}: Extraversion positively associates with individuals' behavioral intention.

H₆: Threat of COVID-19 negatively influences individuals' CFHIP.

H₇: Threat of COVID-19 negatively associates with behavioral intention.

H₈: CFHIP negatively associates with behavioral intention.

H₉: The relationship between threat of COVID-19 and behavioral intention fully mediates by CFHIP.

(Insert Figure 1 here)

Materials And Methods

Questionnaires design and data collection

A preliminary list of measurement items was developed and summarized in Appendix A (Table A1) after reviewing literature regarding personality traits, CFHIP, and PTSD. The content of the items was modified to improve their reliability and validity of the items. The instrument used for the current study included three sections. In the first section, the cover page, the purpose of the study, and a definition of CFHIP were provided. The second section regarded respondents' basic information, including their age, gender, and educational level. The third section contained indicators regarding personality traits, PTSD, CFHIP, and behavioral intention (42 items). The respondents were instructed to use a five-point Likert scale to assess each item, ranging from 1 for strongly disagree to 5 for strongly agree.

A pretest and a pilot test were carried out to verify the instrument. The pretest incorporated five experts, two professors from Information management (IM), three doctoral scholars in the medical information field. The pilot study involved forty respondents self-selected from the study population. Respondents were asked to indicate the format, appropriateness, wording of items and the length of the instrument. Some items were revised to characterize the survey's intention based on the respondents' pre and pilot

test replies. The reliability of all items was satisfactory (Cronbach's alpha is above 0.80), and items loaded in the confirmatory factor analysis are 0.70 or more. Therefore, the instrument has endorsed reliability and content validity. The pilot study result is reported in Appendix B (Table B1).

Research setting

The target population for the present study was Taiwanese. We exercised a convenience sampling approach as the survey instrument. It is cost-effective and has been considerably used in information system (IS) research [21]. All participants were provided consent forms and information sheets that mentioned the present study's objective. Respondents were also aware of their privileges to quit participation during the study.

Results

Demographic Data

The current study collected 279 responses. Of which fourteen were considered unusable due to incomplete answers. Therefore, we incorporated 265 valid responses for the final analysis. The demographics of respondents are shown in Table 1. It indicates respondents are distinct in gender, age, and educational level.

Table 1
Sample demographics

Item	Option	Count	Percentage %
Gender	Male	155	58.49
	Female	110	41.51
Age	20–29	106	40.00
	30–39	76	28.68
	40–49	38	14.34
	50–59	28	10.56
	>=60	17	6.42
Education Level	High School or under	27	10.19
	College	168	63.40
	Master or above	70	26.41

(Insert Table 1 here)

Tests Of The Measurement Model

Reliability was tested using Cronbach's alpha and composite reliability (C.R.) to measure the model's internal consistency. Table 2 shows Cronbach's alpha of each construct ranged from 0.916 to 0.985, which is well above the suggested value of 0.7 by Hair et al. [22]. C.R. values of latent factors are above 0.7, recommended by Hair et al. [22], suggesting good reliability and consistency for measurement items of each construct.

Table 2
Measurement model

Dimension	Items	Loadings	No. of Items	Cronbach's Alpha	Composite Reliability	AVE
CFHIP (2nd Order Construct)	Collection	0.786	15	0.985	0.986	0.831
	Unauthorized Access	0.914				
	Secondary Use	0.928				
	Errors	0.874				
Collection (1st order construct)	COI1	0.930	4	0.945	0.961	0.862
	COI2	0.924				
	COI3	0.901				
	COI4	0.700				
Unauthorized Access (1st order construct)	UA1	0.952	3	0.948	0.967	0.907
	UA2	0.918				
	UA3	0.898				
Secondary Use (1st order construct)	SU1	0.924	4	0.970	0.978	0.917
	SU2	0.926				
	SU3	0.947				
	SU4	0.937				
Errors (1st order construct)	ERR1	0.936	4	0.972	0.980	0.924
	ERR2	0.916				
	ERR3	0.911				
	ERR4	0.928				
Extroversion	EXT1	0.957	4	0.954	0.967	0.880
	EXT2	0.954				
	EXT3	0.950				
	EXT4	0.890				
Agreeableness	AGR1	0.915	3	0.956	0.971	0.920
	AGR2	0.978				

Dimension	Items	Loadings	No. of Items	Cronbach's Alpha	Composite Reliability	AVE
Neuroticism	AGR3	0.982	3	0.934	0.958	0.886
	NEUR1	0.949				
	NEUR2	0.954				
	NEUR3	0.916				
Conscientiousness	CNS1	0.953	4	0.958	0.969	0.889
	CNS2	0.956				
	CNS3	0.947				
	CNS4	0.914				
Intellect	INT1	0.973	5	0.979	0.983	0.924
	INT2	0.972				
	INT3	0.944				
	INT4	0.957				
	INT5	0.959				
Threat of COVID-19	PTD1	0.944	4	0.964	0.973	0.903
	PTD2	0.955				
	PTD3	0.965				
	PTD4	0.935				
Behavioral Intention	BINT1	0.921	4	0.916	0.956	0.914
	BINT2	0.917				
	BINT3	0.872				
	BINT4	0.865				

(Insert Table 2 here)

Convergent validity of the scales is examined by using three standards suggested by Bagozzi and Yi [23]: (1) Loadings of each indicator should be higher than 0.7 (78); (2) C.R. should be above 0.7; and (3) The Average variance extracted (AVE) of each construct should exceed the variance due to the measurement error of that construct (AVE should surpass 0.50). As Table 2 reports, the factor loading of each item in the measuring model of the current study exceeded is well above 0.7. C.R. values are ranged from 0.956 to 0.986. AVE values of constructs are ranged from 0.831 to 0.924, thus meeting each condition for convergent validity.

To test discriminant validity, Fornell and Larcker [24] recommended square root of the AVE of the construct should be greater than the estimated correlation shared between the construct and other constructs in the model. Table 3 shows the square root of AVE for each construct was more significant than the correlation values of the construct, thus meeting the condition for discriminant validity.

Table 3
AVE and correlation among constructs

	CFHIP	EXT	AGR	NEUR	CNS	INT	PTD	BINT
CFHIP	0.91							
EXT	0.23	0.93						
AGR	0.32	0.13	0.95					
NEUR	0.14	0.07	0.18	0.94				
CNS	0.18	0.11	0.14	0.13	0.94			
INT	0.26	0.19	0.06	0.06	0.23	0.96		
PTD	0.17	0.27	0.13	0.14	0.19	0.27	0.95	
BINT	0.21	0.32	0.11	0.26	0.17	0.22	0.32	0.95
Correlations within second-order construct			Collection	Unauthorized Access	Secondary Use	Errors		
Collection			0.92					
Unauthorized Access			0.57	0.95				
Secondary Use			0.72	0.77	0.95			
Errors			0.64	0.78	0.81	0.96		

(Insert Table 2 here)

Tests Of The Structural Model

Figure 2 displays each path's standardized path coefficients, path significances, and variance (R^2). The four personality traits, agreeableness ($\beta = .31$), intellect ($\beta = -.54$), neuroticism ($\beta = .58$), and conscientiousness ($\beta = .57$), and the threat of COVID-19 variable ($\beta = -.26$) significantly influence and explained 26% of the variance of the CFHIP (Fig. 2). Reciprocally, Hypothesis 5a was not supported.

Personality traits significantly explained 81.1% of the variance of the threat of COVID-19. Three personality traits, neuroticism ($\beta = -.17$), conscientiousness ($\beta = .34$), and extraversion ($\beta = .27$), significantly contributed to the explanation of this variance for the threat of COVID-19 (Fig. 2). That is, individuals indicating a lower sense of neuroticism and higher senses of extraversion and

conscientiousness showed significant degrees of the threat of COVID-19 in adopting PHR during COVID-19 pandemic.

The threat of COVID-19 ($\beta = .41$), CFHIP ($\beta = -.28$), and three personality traits, extraversion ($\beta = -.13$), conscientiousness ($\beta = .24$), and neuroticism ($\beta = .21$), significantly explain 64% of the variance to behavioral intention (Fig. 2). Individuals who stated a higher degree of conscientiousness and a higher level of threat of COVID-19 in adopting PHR expected significant potential from the practice of PHR. However, surprisingly, individuals who stated lower senses of Extraversion and a higher sense of neuroticism were also concerned with the significant effects of adopting PHR.

To test Hypothesis 9, the Sobel test statistic of 3.28, $p < 0.001$, implies CFHIP mediates the relationship between the threat of COVID-19 and behavioral intention. It considerably validates the influence of the threat of COVID-19 on behavioral intention.

Discussion

Key findings

Agreeable individuals, as hypothesized, have a higher sensitivity to their health information and are more concerned about potential adverse social outcomes of disclosing their personal health information to third parties. Similarly, conscientious individuals characterized by self-discipline and ambition understand better how to take an influential role in getting out of risky health behaviors and take part in beneficial ones during the COVID-19 pandemic. Thus, it is considered that they have a better level of CFHIP than non-conscientious individuals.

(Insert Fig. 2 here)

Neuroticism increases the worries of potential negative consequences, leads to increased sensitivity, and recommends that emotionally unstable individuals are more concerned and fearful about their personal health information.

The present study did not find any positive relationship between extroversion and CFHIP. An extrovert individual generally enjoys social interactions and actively participates in communication with others. They are open-minded and ready to share their personal information with others. But study findings indicated even extroverts are less likely to share health-related information online as unauthorized access to health information may cause social stigma and harm their reputation during the COVID-19 pandemic. Additionally, extroverts are defined as more easy-going to reveal their private information in face-to-face interaction than in the online environment. This finding is significant because it reports that different personality traits may perform differently in different communication environments. Individuals' CFHIP and degree of trust in healthcare providers influence their intention to provide information. These findings align with the Internet Consumer Trust Model and Electronic Exchange Model [25]. But, additional research is required to explore the conclusion further.

Intellect individuals are less concerned about health information privacy. They use their rationale to understand the environment and are ready to accept new opportunities during the COVID-19 pandemic. They have a better perception of controlling the risk and know ways to mitigate risk as needed, which gives them the audacity to take the bold decision to receive better treatment and care.

Conscientiousness is consistent with the findings of the previous studies [13, 16] and is a significant predictor of both threats of COVID-19 and behavioral intention. The study findings confirmed highly conscientious individuals have a sense of usefulness and an aptitude to emphasize intentions. Compared to less conscientious individuals, they can hold impressive confidence in their aptitude to select PHR during the COVID-19 pandemic to attain anticipated conclusions from their decision.

The current study findings explored higher extravert (better inventiveness, confidence, self-reliance in their capability to function and action) and higher levels of emotional individuals demonstrate an intense belief in their aptitude to choose PHR during the COVID-19 pandemic. The positive association between extraversion and openness implies highly extroverted individuals determine higher resolution concerning the PHR adoption during the COVID-19 pandemic.

The current findings explored high neurotic (worried and nervous) or introverted may contribute to individuals' comprehensive beliefs and potential, which effectively helps achieve their intentions to adopt PHR during the COVID-19 pandemic. Inversely the current study findings indicated lower extravert and higher neuroticism contribute to individuals' higher expectations regarding the consequences of adopting PHR. In other words, the present findings explored conscientiousness as a significant personality trait for adopting PHR during the COVID-19 pandemic. But the conclusions need to be examined further. Due to the insufficient number of researches that have analyzed the contribution of personality traits concerning HIT adoption during the COVID-19 pandemic [16], there is considerable significance in looking for further research to draw out reasonable explanations.

The threat of COVID-19 reflects the uncertainty of health management services consumption on online healthcare management platforms, and individuals' perceived threat of COVID-19 is negatively related to CFHIP. Previous research has also confirmed the correlation between perceived threat and HIT adoption intention [17, 18, 20]. The findings explore individuals' psychological state may be linked to how they interact with their current environment and how well they manage their rational perceptions. Individuals experience extremely stressful events during the pandemic, such as quarantine or infection, are at enhanced risk for developing a negative concern towards the healthcare system. Thus, a negative interaction between Taiwanese and his/her cognitive perception is predicated on the alignment of their privacy concern and HIT adoption intention.

Limitations And Future Research

Despite its substantial outcomes and implications, the current study suffers from a few limitations. First, the implications are from a single survey with samples in Taiwan. Therefore, researchers must be cautious whereas simplifying the findings to other healthcare settings. The future study must conduct a

cross-cultural context to investigate the disparities in antecedents to adoption intention. Second, the comparatively reasonable variance is registered for behavioral intention, only 64.2%, leaving 35.8% unexplained. Therefore, future studies should incorporate other rational considering factors (thinking and feeling), and irrational perceptive factors (sensing and instinct) could help explain the unexplained variance more clearly.

Conclusions

Healthcare organizations are increasingly implementing HIT in patient care during the COVID-19 pandemic. However, a deterring factor in HIT adoption is individuals' CFHIP. The current study explores how individuals' CFHIP is influenced by big five personality traits and the threat of COVID-19. As individuals are the leading user group adopting PHR, their intention is the primary condition to ensure that the expected benefits will be materialized.

Results of SEM analysis also demonstrated the model provided meaningful insight and better explanatory power to predict an individual's intention to adopt PHR during the COVID-19 pandemic. The current study identified four agreeableness, intellect, neuroticism, and conscientiousness, directly influencing individuals' privacy concerns. The threat of COVID-19 positively influences individuals' behavioral intention; CFHIP mediates the relationship between the threat of COVID-19 and behavioral intention. A highly conscientious individual desires to participate in the health care decision-making process. A neurotic individual has significant sensitivity to his/her private health information. Extrovert individuals are risk-takers and ready to get and share information in a public meeting. But findings indicated they are less interested in sharing their health information either online or offline due to social stigma. Inversely, intelligent individuals are ready to share their health information to receive better care.

Contributions

Academic implications

This study contributes to theory and practice in multiple ways. First, the current study can be considered an early step toward understanding how individuals' psychological conditions, the threat of a pandemic, and privacy concern influence their decision-making in adopting novel HIT. Second, the study instrument provides an overall assessment of HIT aspects (technology, behavioral, or user's personality differences) that are challenging from the users' perspective during the pandemic. Third, the threat is negatively related to adaptive behavior. But better self-control of threat is associated with better performance and more optimal cognitive responses. The threat of COVID-19 increases individuals' desire for self-regulation, and sustaining positive intention to adopt better HIT provides a new direction for researchers to contemplate in subsequent research. Fourth, as the current study focuses on PHR adoption during the COVID-19 pandemic, any development regarding a better understanding of phenomena can translate into higher adoption of HIT after implementation. Fifth, previous study developed a typology of Internet users, segmenting into fundamentalists, rationalists, and different individuals based on their CFIP [25]. The current study findings fragmented individuals based on their particular personality traits' adoption pattern

of PHR. Although personality traits could not be transformed, as these are inherent and constant personalities over time [8], it could be used as a leverage point for health care researchers and technology designers that certain personality traits are essential in the perception of CFHIP than others.

Practical implications

First, the current study explored the threat of privacy concern influencing individuals' HIT adoption behavior. The risk remains individuals' concern when using HIT to manage their health. Thus, healthcare service providers should focus on privacy and information transaction security when launching similar services and develop a restricted risk management policy. For example, they should emphasize their effort to limit the risk of information transaction services on their platform and could use advanced encryption technologies to enhance the security and stability of provided services. Second, the current study findings solely contribute to understanding how individuals' personality traits influence their expectancy to adopt PHR during the COVID-19 pandemic. Healthcare providers should explore findings to improve individuals' proficiency, personalities, and self-sufficiency to achieve effective transitions for accomplishing their healthcare behavior. Finally, the current study findings lead to better healthcare technology usage. Healthcare providers and policymakers should consider these findings before further spending on new HIT implementation.

Declarations

Compliance with Ethical Standards

Conflict of Interest The author declares no conflict of interest.

Funding Information This research receives no external funding.

Ethical Approval All procedures performed in the current study concerning human participants agreed with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or equivalent ethical standards. The current article does not perform any study on animals and does not include any laboratory results. The current study primarily evaluates participants' adoption behavior of a new healthcare information technology. According to their understanding, the participants select an answer among the five possibilities (Strongly disagree to Strongly agree).

Informed Consent Verbal informed consent was attained from all individual participants incorporated in the study. The participants were also informed that participation in the current study is entirely voluntary. They have the right not to participate or withdraw their participation at any stage during the study.

Author's Contribution Validation, Final writing, Formal analysis, Data curation, Investigation, Methodology done by Bireswar Dutta

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Figures

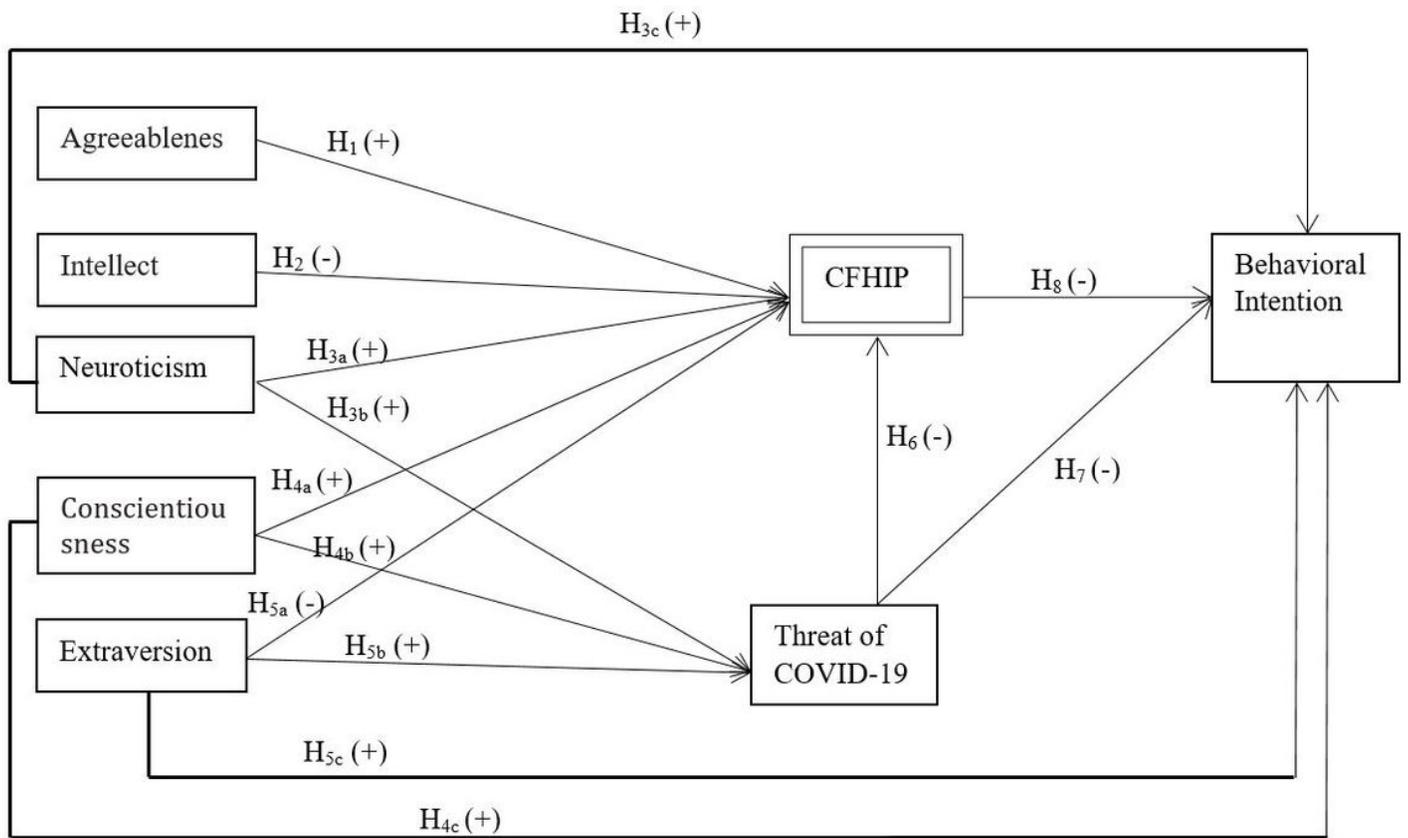


Figure 1

Research Framework

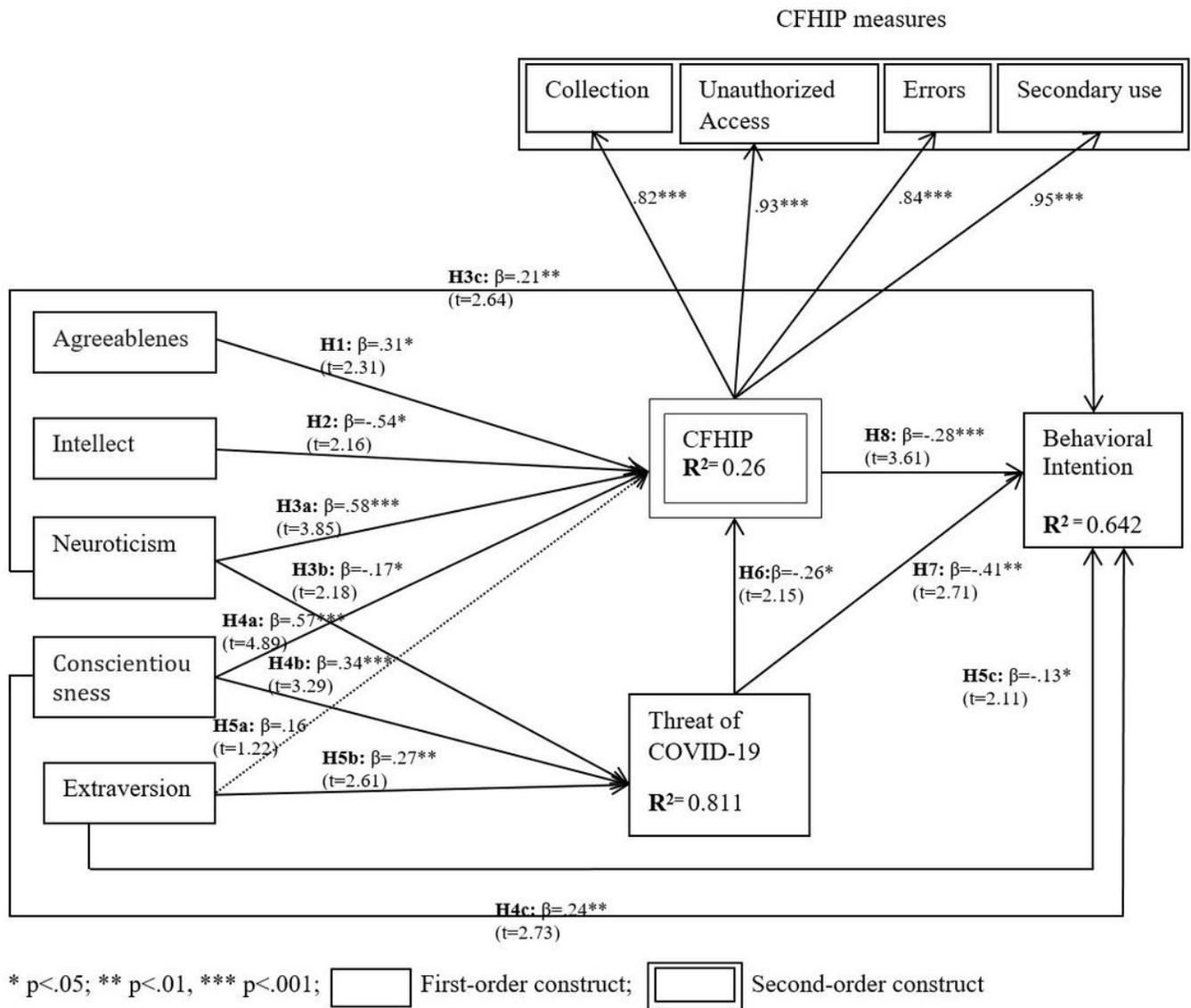


Figure 2

SEM analysis of research model.

Supplementary Files

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