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The Effects of Game Community Members' Addiction Behaviors on Job Stress during the Outbreaks of COVID-19

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ABSTRACT

The use of digital technologies represents many aims such as information, communication, and entertainment. Also, online games become one of the leisure time. Games are a prevalent form of entertainment in which the purpose of the design is to engage players. Besides, the addiction behaviors in this study refer to game addiction and community addiction. This study aims to explore the effects of addictive behaviors and job stress during the COVID-19. This study utilizes a structural equation model (SEM) for measurement evaluation and hypothesis testing. This study adapts members of the game community as the research participants to explore the impact of game addiction on community addiction and job stress. The results reveal that: (1) game addiction positively affects community addiction; (2) community addiction does affect job stress; (3) game addiction has no positive effects on job stress; however, it has an indirect effect.

Keywords: game addicted, community addiction, job stress, COVID-19

1. Introduction

pubic-related health institutions have set social distancing and stay-at-home guidelines to battle the COVID-19 pandemic (World Health Organization, 2020). Also, digital media uses tremendously increased as people spent more time at home due to coronavirus lockdowns (Kemp, 2020), especially for downloading prevalent social media and messaging apps. Also, plaving online games online has become a leisure time for some people as well as occupying most people's leisure time or even all of their time (Lee et al., 2015). The rapid popularization of facilities such as the Internet not only provides a channel for modern people to find information but also offers more game space. Today's games are different from the past. People can find usable game applications through the Internet and even chat with strangers while playing games. A breakthrough in online games allows people to find a new place without limitations of time and space (Colder et al., 2018). The growth rate of the online game market has exceeded the original expectations. One of the reasons is that the new players at the low age of primary and secondary schools have led to the continuous expansion of the online game market (Qu, 2021). The computer education courses in compulsory education are continuously extended and expanded. Students contact with the Internet and online games early.

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This study was to explore the modern people's views During the outbreaks of the COVID-19 pandemic, on online games and online communities and understood the people who play online games and joined the game community. Besides, the research tried to analyze whether game community members possess game addiction or community addiction. People who had the habit of playing online games were regarded as research participants. The questionnaire was designed for those who had experience in joining the game community. The research scope included game addiction, social addiction, and job stress. This study utilized the mutual influence of these dimensions to find the relationship as well as explore which element will affect people's life.

In this study, the processes of this study were to find relevant literature information, determined the research direction, defined term definitions, proposed the problems and research purposes, and found out the scope and limitations of the research. Then, the questionnaire was designed and distributed. The data from questionnaires were analyzed. The collected questionnaires were integrated and hypothesis tested. Finally, conclusions and suggestions were put forward for study.



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2. Literature Review

2.1 Game addiction

Game addiction (GMA) is a special addictive behavior characterized by excessive or compulsive online gaming that affects people's real-life (Stockdale et al., 2018). The definition of GMA is still highly controversial in the medical field, and no evidence is shown that GMA should be classified as a mental disorder (Jiménez-Murcia et al., 2014). In 2010, the media reported that the Diagnostic and Statistical Manual of Mental Disorders (DSM) may consider GMA as a kind of disorder. Numerous scholars mentioned mental the characteristics of GMA may spend a long time on online games. They also divided the attractiveness and the addiction factors of games into two groups. The first group is the addiction factor which the characteristics will have withdrawal symptoms and salience of overuse behavior; the second group is peripheral factors, that is, the strong attractiveness of the game and the characteristics related to the pathological game, including tolerance and emotional changes of the game. It was also found that more than 12% of online game addicts have the symptoms above mentioned (Brunborg et al., 2014). Van Rooij et al., (2010) mentioned that online game addicts have an emotional response, pointing out that online games can make individuals change from negative emotions to neutral or positive emotions or even more excitement. In terms of game rewards, when the characters in the game obtained various rewards (treasures), character growth (upgrades), and interaction with virtual people, individuals regard it as a shortterm high-interest rate gambling. It is like an intermittent enhancement that allows continuously feel a sense of immediate feedback effect. However, the intensity fun, and excitement of the game will diminish the tolerance for the reward, and players need to spend more time betting on games and paying much attention to getting rewards. Lemmens et al. (2013) believed that online game addicts feel eager to play online games, making the desire uncontrollable and out of control. Moreover, when the addicts cannot access online games, they will feel strongly discomfort and withdrawal symptoms. Dong et al. (2011) also believed that addicts will continue to think about the activities and processes in-game. Because addicts are ungraded by game props and character abilities in-game, they will take initiative to maintain or raise to a new level.

Some scholars (Loton et al., 2015) found that Internet addicts regard online games as the most important leisure activity and they can spend more time in games, and even don't want to eat or sleep, go to school, out of touch with reality and lose interest in everything. Emotionally, when individuals are forced to close online games, they will out-ofcontrol situations such as screaming and emotional anger. Also, online game addicts spend a lot of time in games, are emotionally restless, easy to get angry, and lose interest in

al., 2019). They start to ignore relationships with friends and colleagues and community, and eventually, self-life becomes unmanageable. Some scholars (Parrott et al., 2020) mentioned that the reward system in games maybe because of game addiction. In the virtual world created by games, game addicts can gain confidence and satisfaction which cannot be obtained in the real world.

2.2 Community addiction

Although social software has brought convenience and immediacy to people's lives, many negative reports have emerged in recent years (Ricard et al., 2018). It was pointed out that electromagnetic waves are generated about 50,000 to 60,000 times than those not in use. It seriously causes human health. The sources of stress brought by the use of communication community can be divided into information anxiety (leaving someone on reading and irrelevant to the topic), time management, inability to communicate on time due to response time and cognitive gap, and social communication as the main source of stress (Turel & Serenko, 2012). When social community plays an important role in life, the symptoms also happen. The cognitive gap is caused by indirect dialogue, communication barriers, spending time guessing, and so forth. Although the community era has shortened the space and time distance, it has widened the cognitive gap and caused unnecessary waste of time and mental exhaustion. The community also brings a lot of problems to interpersonal relationships in the workplace, such as interpersonal tension that leave someone on reading, contact with the boss all the time, the download of cute stickers for fashion, and the abuse of stickers alienates self-relationships (Gong et al., 2019).

The Telegraph cited a report by UCA chiropractors that found that when people look down at hand-held electronic products and send text messages for long periods, it may cause poor posture, which causes negative effects and may lead to reduced longevity (Yao & Zong, 2014). According to a report by Health Medical Network, too much focuses on using social media may cause attention disorder (Brunborg et al., 2014). When people are engaged in activities and fully devote their attention to the situation as well as filter out all irrelevant perceptions, they will enter a state of immersion (Kircaburun et al., 2019), and such a flow experience includes the following four dimensions: attention shifting, consciousness losing, time distortion, and uninterrupted interaction

With the popularization of smartphones and the introduction of new mobile communication technologies, not only interaction between people will be more smooth, but also the widespread use of APPs are utilized. Broadly speaking, any software on a mobile phone or computer can be called an APP. Currently, numerous applications are designed for smartphones, tablets, and other mobile devices. The reason lies in APP's diverse functions. To meet the needs of users at different levels, in addition to basic communication functions such as other activities. Addicts disobey online game time limits, then free messaging and voice calls, it also implements exaggerated start missing important times and escape from real life (Gros et and cute stickers, continuously upgrades the user's interface,



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and even shares daily life. Photos and videos make the world a global village with no distance between people. With the Internet, a new playground has emerged. The Internet offers a wide variety of games to play which are distributed across a variety of game genres (Kuss et al., 2011). Therefore, this study inferred the hypothesis as followed:

H1: The game addiction has positive effects on community addiction.

2.3 Job stress

Job stress is a dynamic situation in which individuals are confronted with goals related to their expectations, opportunities, constraints, and requirements, and the consequences of this dynamic situation are considered an important and uncertain factor (Wang et al., 2020). Stress is an integrated pattern of an individual's physical, psychological, and behavioral responses to various stimuli. Several major factors related to stress are the stressor, the individual's perception of the stressor, and the state of tension. First, work stress is twofold. For most people, job stress has positive and negative aspects. For example, when individuals are faced with a difficult task, they feel a sense of excitement, a feeling of increased motivation, and a certain degree of threat and anxiety at the same time (Lin et al., 2015). The promotion of the position also has two effects. When facing a new position, people worry about not realizing the situation, disharmony in interpersonal relationships in the new working environment as well as whether you can be competent for this new position, and so forth. On the other hand, the acquisition of a new position can make people eager to meet new challenges, and get rewards and satisfaction (Yang, 2017). Under such circumstances, new and unknown work situations produce pressure. Secondly, the existence of job stress is inevitable.

There is no doubt that a work-life environment without any pressure does not exist. According to the American Institute of Stress (AIS), job stress has become the main source of stress for adults in the United States, and it may increase the

incidence of heart disease, hypertension, and other diseases year by year (AIS, 1978). In recent days, negative news reports about stress have also been reported. The chief executive of the National Suicide Prevention Center and chief physician also pointed out that suicide is caused by the accumulation of multiple factors, and workplace stress is indeed one of the main factors for suicide (Li et al., 2017). From the above mentioned, it can be found that work stress has become a major issue that modern people must pay attention to. With the popularization of knowledge and change in social values, people should face the problems of job stress. Also, this study contains the following four aspects: workload, communication fatigue, and information load. Stress from the workplace may intensify individuals' undesirable emotions. Therefore, this study inferred the hypothesis as followed:

H2: Community addiction has positive effects on job stress.

H3: The game addiction has positive effects on job stress.3. Methodology

3.1 Research framework

Based on the research purpose and the results of related literature discussions, this research proposed a research structure as the basis for this research and described the research framework, research process, participants, research tools, and data analysis methods in sequence. The purpose of this study was to explore the influence of game addiction on the respondents' community addiction and job stress. The questionnaire survey method was used to collect relevant data for discussion, and to explore its influence on a certain construct depending on the dimension of variables. All measurement items were adapted from well-established existing scales. This study used the scales from Turel et al. (2011) to operationalize the dependent variable, namely GMA. The CMA items were adapted from Xiang et al. (2019). The items of JST were extracted from Mucci et al. (2016). The framework of this research was shown in Figures 3-1.



Figure 3-1 Research framework



3.2 Research variables and sampling method

The questionnaire items of this research were divided into four parts, which were the basic information items (gender, age, average income, etc.), game addiction, community addiction, and job stress. For a total of 58 items, the measurement scale quantifies the scores filled in by respondents on a seven-point Likert scale. Four age groups belonged to the stratified sampling method. A total of 400 questionnaires were distributed in this study, and 309 were valid with a rate of 77.25 %. To detect the threat level to common method variance (CMV), the single-factor model and the multi-factor model were evaluated by CFA comparison. Through the chi-square test, it was found that the fitness of the multi-factor model ($\gamma^2 = 132.2$, d. f = 51, CFI = 0.984, GFI = 0.936, AGFI = 0.902, RMR = 0.036, RMSEA = 0.072) was significantly higher than that of single-factor model($\gamma^2 = 952.1$, d. f = 54, CFI = 0.828, GFI = 0.568, AGFI = 0.377, RMR = 0.099, RMSEA = 0.232), and $\Delta \chi^2$ (3) = 819.9, p < 0.001, indicating that although the data collected by this study existed the threat of CMV, the results should be excluded (Podsakoff et al., 2003).

4. Data Analysis

4.1 Descriptive Analysis

Roscoe (1975) believed that the number of participants should be between 300 and 500, which is appropriate for most studies. Therefore, this study distributed 400 questionnaires according to different ages. A total of 366 questionnaires were received, and the recovery rate was 91.5%. Finally, 309 were valid with a rate of 77.25 %. According to the valid questionnaires collected by this research, the proportion of respondents was 49.8% male and 50.2% female. The majority age group was 19-30 (83.4%), while the under age of 18 groups was 7.8%. In terms of marriage, the majority were unmarried (87.7%). In terms of occupations, numerous students had part-time jobs (52.1%), and service industries were 21.8%. In terms of salary, most respondents had a monthly income of less than 30,000 (70.9%). As for mobile phone brand preference, most respondents used APPLE mobile phones (74.4%). It can be seen that the habit of spending 3-5 times per day was 45.3%, accounting for 81.2%. The average number of hours was less than 3 hours (62.8%) and 3-5 hours (26.5%) were mostly respondents, accounting for 89.3%. Also, 62.8% participants of using the Internet in the community were

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less than 3 hours and most of them spent 3-5 hours (26.5%), totally accounting for 89.3%. Regardless of work or off work, most participants used social media to talk and chat about online games. The above-mentioned was shown in Table 1.

4.2 Reliability and Validity Analysis

In this part of the study, Cronbach's alpha coefficient, composite reliability, and extracted variance were used to measure the internal consistency of the questionnaire. In the reliability analysis of GMA, the Cronbach's alpha coefficients of WDS, MDM, TLE, and CFL were 0.863, 0.935, 0.817, and 0.928, respectively. The overall Cronbach's α reliability coefficient scale of GMA was 0.964. In the reliability analysis of the community addiction scale, ATS, CCL, TMD, and UTI Cronbach's alpha coefficient scores were 0.947, 0.917, 0.940, and 0.922, respectively. The overall Cronbach's alpha coefficient of CMA was 0.977. As for the reliability analysis of the job stress scale, the Cronbach's alpha coefficients of WKL, CNF, and IFL were respectively 0.910, 0.940, 0.932, and 0.927. The overall Cronbach's alpha coefficient of JBS was 0.978.

Bagozzi & Yi (1988) pointed out that three evaluation criteria of convergence validity analysis are GFI (goodness-offit index), NFI (normed fit index), and CFI (comparative fit index). All indicators should be greater than 0.8. The RMSR (square root of mean residual) is lower than 0.05; the higher the CR (combined reliability) reliability, the higher the internal consistency of these indicators which 0.7 is an acceptable threshold (Hair, 1998). AVE (extracted variation) refers to the average variation extraction greater than 0.5 which means that the construct has sufficient convergent validity (Fornell & Larcker, 1981). From the above-mentioned criteria, the GMA construct of GFI, NFI, and CFI was 0.888, 0.935, and 0.953 respectively. Each factor loading was significant, and the AVE was higher than 0.5. For the CMA construct, the GFI, NFI, and CFI were 0.904, 0.953, and 0.970, respectively which were all higher than 0.9. And each loading factor reached a significant level. For the JBS construct, the GFI, NFI, and CFI were 0.905, 0.956, and 0.974 which were all higher than 0.9 as well as reached a significant level for each loading factor. Therefore, the constructs of this study had sufficient convergent validity. Above mentioned was shown in Table 2.

Table 1 Sample Structure						
Respondent's background	Samp	Samples				
Gender	Male	Male 154				
	Female	155	50.20			
Age	< 19	24	7.8			
-	19-30	257	83.2			
	31-40	17	5.5			
	> 40	11	3.6			
marriage	Unmarried	271	87.7			
	Married	38	12.3			
Profession	Student (Part-time job)	160	52.1			
	Full-time job	149	47.9			



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Salary	<30,001	219	70.9
-	30,001-50,000	70	22.7
	>50,000	20	6.5
Mobile phone brands	Apple	230	74.4
	Samsung	32	10.4
	OPPO	19	6.1
	Others	28	9.0
Spend time in games	<3 hours	140	45.3
	3 hours-5 hours	111	35.9
	>5 hours	58	18.8
Spend time in communities	<3 hours	194	62.8
-	3 hours-5 hours	82	26.5
	>5 hours	33	10.7
Period of use communities	During work	1	0.3
	During off work	123	39.8
	All have	140	45.3
	Less of both	45	14.6
Frequency of use communities	Strong	136	44.0
	Medium	147	47.6
	Low	26	8.4

The correlation of each construct in the study was lower than its reliability, indicating that there is discriminant reliability between constructs and discriminant validity between constructs (Gaski, 1986). As for comparing the dimensions with each other, when the chi-square difference

between the constrained and unconstrained model was greater than 3.84 as well as reached a significant level. Each dimension has good discriminant validity (Anderson & Gerbing, 1988), as shown in Table 3.

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Construct	ML Loading	E Error	Composite reliability	AVE	Cronbach's α
Game addition (GMA)			0.9678	0.8826	0.964
Withdrawal symptoms (WDS)	0.948***	0.134			0.863
Mood modification (MDM)	0.947^{***}	0.163			0.935
Tolerance (TLE)	0.960^{***}	0.093			0.817
Conflict (CFL)	0.967^{***}	0.096			0.928
Note: GFI = 0.888, AGFI=0.843, RM	R = 0.078, N	FI = 0.935,	CFI = 0.953, **	*p < 0.001.	
Community addition (CMA)			0.9648	0.8728	0.977
Attentional shifting (ATS)	0.965***	0.112			0.947
Consciousness losing (CCL)	0.999***	0.003			0.917
Time distortion (TMD)	0.976^{***}	0.075			0.940
Uninterrupted interaction (UTI)	0.896^{***}	0.347			0.922
Note: GFI = 0.904, AGFI=0.870, RM	R = 0.055, N	FI = 0.953,	CFI = 0.970, **	*p < 0.001.	
Job Stress (JBS)			0.9915	0.9669	0.978
Work load (WKL)	0.960^{***}	0.073			0.910
Communication fatigue (CNF)	0.996***	0.012			0.940
Information load (IFL)	0.998^{***}	0.006			0.932
Work feedback (WKF)	0.986***	0.042			0.927
Note: GFI = 0.905, AGFI=0.873, RM	R = 0.045, N	FI = 0.956,	CFI = 0.974, **	*p < 0.001.	

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Table 3. Discriminative validity analysis of each dimension

Game addition (GMA)	χ^2	d.f	$ extstyle \chi^2$
Unconstrained model	269.0	84	_
Withdrawal symptoms (WDS) \longleftrightarrow Mood modification (MDM)	280.4	85	11.4
Withdrawal symptoms (WDS) \longleftarrow Tolerance (TLE)	285.1	85	16.1
Withdrawal symptoms (WDS) \longleftrightarrow Conflict (CFL)	283.6	85	14.6



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Tolerance (TLE)Conflict (CFL)282.08513.0Community addition (CMA) χ^2 d.f $\Delta\chi^2$ Unconstrained model265.398-Attention shifting (ATS) \leftarrow Consciousness losing (CCL)278.09912.7Attention shifting (ATS) \leftarrow Time distortion (TMD)273.6998.3Attention shifting (ATS) \leftarrow Uninterrupted interaction (UTI)279.99914.6Consciousness losing (CCL) \leftarrow Time distortion (TMD)279.79914.4Consciousness losing (CCL) \leftarrow Uninterrupted interaction (UTI)290.39925.0Time distortion (TMD) \leftarrow Uninterrupted interaction (UTI)281.19915.8Unconstrained model276.0113-Work load (WKL) \leftarrow Information load (IFL)296.511420.5Work load (WKL) \leftarrow Work food hork (WKE)203.911417.0	Mood modification (MDM)	Tolerance (TLE) Conflict (CFL)	284.7 279.7	85 85	15.7 10.7
Community addition (CMA) χ^2 d.f $\Delta\chi^2$ Unconstrained model265.398-Attention shifting (ATS) \leftarrow Consciousness losing (CCL)278.09912.7Attention shifting (ATS) \leftarrow Time distortion (TMD)273.6998.3Attention shifting (ATS) \leftarrow Uninterrupted interaction (UTI)279.99914.6Consciousness losing (CCL) \leftarrow Time distortion (TMD)279.79914.4Consciousness losing (CCL) \leftarrow Uninterrupted interaction (UTI)290.39925.0Time distortion (TMD) \leftarrow Uninterrupted interaction (UTI)281.19915.8Unconstrained model276.0113-Work load (WKL) \leftarrow Information load (IFL)296.511413.3Work load (WKL) \leftarrow Work faadback (WKE)293.911417.9	Tolerance (TLE)	Conflict (CFL)	282.0	85	13.0
Unconstrained model265.398-Attention shifting (ATS)Image: Consciousness losing (CCL)278.09912.7Attention shifting (ATS)Time distortion (TMD)273.6998.3Attention shifting (ATS)Uninterrupted interaction (UTI)279.99914.6Consciousness losing (CCL)Time distortion (TMD)279.79914.4Consciousness losing (CCL)Uninterrupted interaction (UTI)290.39925.0Time distortion (TMD)Uninterrupted interaction (UTI)281.19915.8Unconstrained modelCommunication fatigue (CNF)289.311413.3Work load (WKL)Information load (IFL)296.511420.5Work load (WKL)Work food hook (WKE)203.911417.0	Community addition (CMA)		χ^2	d.f	$\Delta \chi^2$
Attention shifting (ATS)Consciousness losing (CCL)278.09912.7Attention shifting (ATS)Time distortion (TMD)273.6998.3Attention shifting (ATS)Uninterrupted interaction (UTI)279.99914.6Consciousness losing (CCL)Time distortion (TMD)279.79914.4Consciousness losing (CCL)Uninterrupted interaction (UTI)290.39925.0Time distortion (TMD)Uninterrupted interaction (UTI)281.19915.8Unconstrained modelCommunication fatigue (CNF)289.311413.3Work load (WKL)Information load (IFL)296.511420.5Work load (WKL)Work faadback (WKE)203.911417.0	Unconstrained model		265.3	98	_
Attention shifting (ATS)Time distortion (TMD)273.6998.3Attention shifting (ATS)Uninterrupted interaction (UTI)279.99914.6Consciousness losing (CCL)Time distortion (TMD)279.79914.4Consciousness losing (CCL)Uninterrupted interaction (UTI)290.39925.0Time distortion (TMD)Uninterrupted interaction (UTI)281.19915.8Unconstrained model276.0113-Work load (WKL)Information load (IFL)296.511413.3Work load (WKL)Work faadback (WKE)203.911417.0	Attention shifting (ATS) \checkmark	Consciousness losing (CCL)	278.0	99	12.7
Attention shifting (ATS)Uninterrupted interaction (UTI)279.99914.6Consciousness losing (CCL)Time distortion (TMD)279.79914.4Consciousness losing (CCL)Uninterrupted interaction (UTI)290.39925.0Time distortion (TMD)Uninterrupted interaction (UTI)281.19915.8Unconstrained model276.0113-Work load (WKL)Information load (IFL)296.511413.3Work load (WKL)Work faadback (WKE)293.911417.0	Attention shifting (ATS)	Time distortion (TMD)	273.6	99	8.3
Consciousness losing (CCL)Time distortion (TMD)279.79914.4Consciousness losing (CCL)Ininterrupted interaction (UTI)290.39925.0Time distortion (TMD)Ininterrupted interaction (UTI)281.19915.8Unconstrained modelCommunication fatigue (CNF)289.311413.3Work load (WKL)Information load (IFL)296.511420.5Work load (WKL)Work faadback (WKE)203.911417.0	Attention shifting (ATS)	Uninterrupted interaction (UTI)	279.9	99	14.6
Consciousness losing (CCL)Uninterrupted interaction (UTI)290.39925.0Time distortion (TMD)Uninterrupted interaction (UTI)281.19915.8Unconstrained model276.0113-Work load (WKL)Communication fatigue (CNF)289.311413.3Work load (WKL)Information load (IFL)296.511420.5Work load (WKL)Work faadback (WKE)203.911417.0	Consciousness losing (CCL)	Time distortion (TMD)	279.7	99	14.4
Time distortion (TMD)Uninterrupted interaction (UTI)281.19915.8Unconstrained model276.0113-Work load (WKL)Communication fatigue (CNF)289.311413.3Work load (WKL)Information load (IFL)296.511420.5Work load (WKL)Work faadback (WKE)203.911417.0	Consciousness losing (CCL)	Uninterrupted interaction (UTI)	290.3	99	25.0
Unconstrained model Work load (WKL) Work load (WKL)	Time distortion (TMD)	Uninterrupted interaction (UTI)	281.1	99	15.8
Work load (WKL)Communication fatigue (CNF)289.311413.3Work load (WKL)Information load (IFL)296.511420.5Work load (WKL)Work faadback (WKE)203.911417.0	Unconstrained model		276.0	113	_
Work load (WKL) Information load (IFL) 296.5 114 20.5 Work load (WKL) Work faadback (WKE) 203.9 114 17.0	Work load (WKL)	Communication fatigue (CNF)	289.3	114	13.3
Work load (WKI) 203.0 114 17.0	Work load (WKL)	Information load (IFL)	296.5	114	20.5
WOIK IOau (WKL) WOIK IEEuback (WKI) 293.9 114 17.9	Work load (WKL)	Work feedback (WKF)	293.9	114	17.9
Communication fatigue (CNF) ←→ Information load (IFL) 288.1 114 12.1	Communication fatigue (CNF) \triangleleft	Information load (IFL)	288.1	114	12.1
Communication fatigue (CNF) ←→ Work feedback (WKF) 285.9 114 9.9	Communication fatigue (CNF)	Work feedback (WKF)	285.9	114	9.9
Information load (IFL) \longleftrightarrow Work feedback (WKF) 292.2 114 16.2	Information load (IFL)	Work feedback (WKF)	292.2	114	16.2

4.3 Structure Equation Model

The main purpose of the correlation analysis is to find the multiple variables that are highly correlated to target data influence of multicollinearity problems and is suitable for the to avoid multicollinearity problems. In this study, the variables structure equation model (Table 4).

are correlated to each other with an appropriate coefficient (Hamilton, 1991). Thus, this study inferred to exclude the

Table 4	Variable	Correlation	Coefficient	Analysis

WDS	MDM	TLE	CFL	ATS	CCL	TMD	UTI	WKL	CNF	IFL	WKF
1.000	0.822	0.765	0.796	0.776	0.748	0.756	0.721	0.658	0.668	0.653	0.637
	1.000	0.755	0.855	0.797	0.781	0.793	0.705	0.727	0.733	0.719	0.707
		1.000	0.805	0.683	0.657	0.674	0.632	0.578	0.582	0.596	0.556
			1.000	0.796	0.768	0.785	0.689	0.693	0.716	0.712	0.702
				1.000	0.900	0.880	0.824	0.778	0.796	0.782	0.762
					1.000	0.911	0.814	0.813	0.807	0.807	0.782
						1.000	0.835	0.817	0.794	0.790	0.779
							1.000	0.697	0.722	0.732	0.674
								1.000	0.876	0.877	0.868
									1.000	0.926	0.916
										1.000	0.914
											1.000
	WDS 1.000	WDS MDM 1.000 0.822 1.000 1.000	WDS MDM TLE 1.000 0.822 0.765 1.000 0.755 1.000	WDS MDM TLE CFL 1.000 0.822 0.765 0.796 1.000 0.755 0.855 1.000 0.805 1.000 1.000 1.000 1.000 1.000	WDS MDM TLE CFL ATS 1.000 0.822 0.765 0.796 0.776 1.000 0.755 0.855 0.797 1.000 0.805 0.683 1.000 1.000 0.796 1.000 1.000 0.796 1.000 1.000 0.796	WDS MDM TLE CFL ATS CCL 1.000 0.822 0.765 0.796 0.776 0.748 1.000 0.755 0.855 0.797 0.781 1.000 0.755 0.805 0.683 0.657 1.000 0.796 0.768 1.000 0.900 1.000 1.000 0.900 1.000 1.000	WDS MDM TLE CFL ATS CCL TMD 1.000 0.822 0.765 0.796 0.776 0.748 0.756 1.000 0.755 0.855 0.797 0.781 0.793 1.000 0.755 0.805 0.683 0.657 0.674 1.000 0.805 0.683 0.657 0.674 1.000 0.796 0.768 0.785 1.000 0.805 1.000 0.900 0.880 1.000 1.000 1.000 0.911 1.000	WDS MDM TLE CFL ATS CCL TMD UTI 1.000 0.822 0.765 0.796 0.776 0.748 0.756 0.721 1.000 0.822 0.755 0.855 0.797 0.781 0.793 0.705 1.000 0.755 0.855 0.797 0.781 0.793 0.705 1.000 0.805 0.683 0.657 0.674 0.632 1.000 0.805 0.683 0.768 0.785 0.689 1.000 0.900 0.880 0.824 1.000 0.911 0.814 1.000 0.911 0.835 1.000 1.000 0.835 1.000	WDS MDM TLE CFL ATS CCL TMD UTI WKL 1.000 0.822 0.765 0.796 0.776 0.748 0.756 0.721 0.658 1.000 0.755 0.855 0.797 0.781 0.793 0.705 0.727 1.000 0.755 0.855 0.797 0.781 0.793 0.632 0.578 1.000 0.805 0.683 0.657 0.674 0.632 0.578 1.000 0.805 0.796 0.768 0.785 0.689 0.693 1.000 0.900 0.880 0.824 0.778 1.000 0.900 0.880 0.824 0.778 1.000 0.911 0.814 0.813 1.000 0.835 0.817 1.000 1.000 0.497 1.000 0.497 1.000 1.000	WDS MDM TLE CFL ATS CCL TMD UTI WKL CNF 1.000 0.822 0.765 0.796 0.776 0.748 0.756 0.721 0.658 0.668 1.000 0.755 0.855 0.797 0.781 0.793 0.705 0.727 0.733 1.000 0.755 0.805 0.683 0.657 0.674 0.632 0.578 0.582 1.000 0.805 0.683 0.657 0.674 0.632 0.578 0.582 1.000 0.796 0.768 0.785 0.689 0.693 0.716 1.000 0.900 0.880 0.824 0.778 0.796 1.000 0.911 0.814 0.813 0.807 1.000 0.835 0.817 0.794 1.000 0.697 0.722 1.000 0.876 1.000 0.876 1.000 0.876 1.000 1.000 0.876	WDS MDM TLE CFL ATS CCL TMD UTI WKL CNF IFL 1.000 0.822 0.765 0.796 0.776 0.748 0.756 0.721 0.658 0.668 0.653 1.000 0.755 0.855 0.797 0.781 0.793 0.705 0.727 0.733 0.719 1.000 0.755 0.855 0.797 0.781 0.793 0.705 0.727 0.733 0.719 1.000 0.805 0.683 0.657 0.674 0.632 0.578 0.582 0.596 1.000 0.796 0.768 0.785 0.689 0.693 0.716 0.712 1.000 0.900 0.880 0.824 0.778 0.796 0.782 1.000 0.911 0.814 0.813 0.807 0.807 1.000 0.835 0.817 0.794 0.790 1.000 0.697 0.722 0.732 1.000

Note: All variables are moderately correlated, () = negative correlation

of the model and observes the data into three indicators: Absolute Fit Measures, Incremental Fit Measures, and Parsimonious Fit Measures. The absolute fit measures of the overall theoretical model in this study were $\gamma^2=132.2$, GFI=0.936, RMR=0.036, RMSEA=0.072, and AGFI=0.902. Also, RMR and RMSEA achieved acceptable standards, and the chi-square value reached a significant level. The measure of incremental fit was NFI=0.975 and CFI=0.984, which were acceptable standards. Therefore, the overall theoretical model of this study has a great model fit.

The factor loadings of each aspect of GMA were most significant in MDM and TLE (λ =0.924), followed by WDS (λ =0.884) and CFL (λ =0.839). It showed that as long as people are addicted to games, their emotions will be affected by online games, such as feeling depressed, restless, and so forth. Among the factor loading of CMA, CCL (λ =0.954) was the

According to Hair et al (1998), this study evaluates the fit most significant, followed by TMD (λ =0.950), ATS (λ =0.940), and UTI (λ =0.8467). It showed that although social media application regards as a convenient channel for communication, it makes users ignore the changes in the surrounding environment. For the factor loading of JST, CNF was the most significant (λ =0.963), followed by IFL (λ =0.961), WKF $(\lambda=0.949)$, WKL ($\lambda=0.916$), which showed that in the working environment, the on-line game topic will affect work efficiency and even cause job stress.

> Based on the above mentioned, it can be found that the respondents' use of social media software during work had a significant impact on work stress. It can be inferred that the respondents have been inefficient and unable to concentrate at work due to community addiction for a long time. As long as they receive the notification from the social media community, users will be distracted. In addition, under the circumstance of modern technology, social media in the community is used as a



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bridge for various information transmission and communication, so that the respondents must take time to respond to the game group or workgroup within the limited time which undoubtedly increases the job stress of the respondents. And

when they have a sense of job burnout, it will lead to a significant impact on work efficiency, work enthusiasm, and work attitude.



NFI=0.975, * = p < 0.001

Figure 4-1 SEM path

5. Conclusion and Implication

Based on the results of statistical analysis, the item scales of GMA showed that MDM got the lowest scores which reveals that respondents would not change their emotions by

affected by the information about the game community. In terms of JST scales, WFK was the lowest, reflecting that the respondents didn't affect their work due to the use of game communities and online games. Online games are essentially playing online games. As for the item scales of CMA, the ATS social media platforms. Besides, the empirical results of this was the lowest, reflecting that the respondents were not study were supported, except for H3 as described in Table 4.

Table 4 Path	coefficient	and hypothesis
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Constructive relationship	Path coefficient	Hypothesis	Result
$GMA \rightarrow CMA$	0.890***	H1	supported
$CMA \rightarrow JST$	0.815***	H2	supported
GMA →JST	0.068	H3	Not supported
Note: ***p<0.001			

Most players usually interact with old and new friends on game platforms, compete with each other and cooperate to create empathy and imagination in the virtual world. The study "The Benefits of Playing Video Games", reveals that games enable children to transfer prosocial skills into peer and family relationships outside of the gaming world. Another study found that children who play multiplayer games tend to view people from different cultures more positively because online game exposes them to different backgrounds. These positive conclusions do not change the fact that children spend too much time playing video games. Also, the World Health Organization's latest report of the International Classification of Diseases ICD-11 officially regards "gaming disorder" as a mental illness. Addiction is a repetitive habit pattern. There are two reasons why people repeat a certain behavior. One is that such behavior will get some kind of benefit; for instance, getting wealth, making friends, accompanied by stimulation or

pleasure, and even self-affirmation. In addition, this kind of behavior can reduce some discomfort, such as reducing anxiety, boredom, and even escaping the unhappiness of reality. Game addiction refers to online games providing a kind of wonderful feeling like the real world and users feel good and immersed in it (Soror et al, 2012). Studies have found that in the process of forming an addiction, online game addicts will initially produce psychological and physiological orgasmic substances, strong desires, and cravings, and then repeatedly experience tolerance, withdrawal, dependence syndrome, and other phenomena. It may result in addictive behavior evolves into a habitual response to the necessity that ultimately results in real life being hindered by online games (BBC News, 2017).

A certain level of screen time is associated with mental happiness to boost people's social connections and skills, thereby increasing their well-being. And this phenomenon of



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increasing well-being would up to a certain point (play computer 4.28 hours, watch video 3.68 hours, slide phone 1.95 hours, play video games 1.67 hours). The degree varies from weekdays to weekends, and holidays can be increased by another 2 hours without negative effects (Graber, 2019). This study found that community members' addiction to games did not affect job stress, indicating that community members have a considerable degree of digital literacy, but community immersion can cause job stress. It reminds us that in a gray world where virtual and reality are blended, interaction and connection among community members seem to have a greater impact on life and work than immersion in screen time for an individual.

Many people utilize various leisure activities to deal with stress (Kim & Lee, 2005) including using the Internet, which is easily and quickly accessible. People are more likely to develop Internet addiction when meet with unsatisfactory experiences in their daily lives and when they fail to try other coping methods. Games account for a large portion of Internet use. The results revealed that GMA has positive effects on CMA, and CMA has positive effects on JST. However, too much addiction to the community online games would decrease work efficiency and cause stress. Therefore, it is suggested that the community manager should set the community guidelines and rules; for instance, time limitations.

On the other hand, spending more time on leisure activities during COVID-19 such as home crafts and artisanship, mind games, languages, social/food music, and performing arts (Lades et al., 2020; Rodriguez-Rey et al., 2020). Moreover, different personality factors are related to the tendency of Internet game addiction (Taeyeong et al., 2021). Therefore, when people are addicted to game addition, they still feel the stress from jobs because of receiving the short-term relief while playing online games. They still have to face the reality of the job.

6. Limitations and recommendations

Due to the time limit of this research, random sampling of questionnaires and literature analysis was mainly used, and secondary data were collected from website materials, books, e-books, and related reports which may be insufficient. Future research can strengthen data collection. It is suggested that follow-up researchers can conduct long-term research and use questionnaire stratified sampling to further understand the relationship between variables. Since this study is to explore the influence of respondents on online game addiction, there are still many aspects worthy of further study and discussion. Also, the proportion of subjects was mostly 19-30 years old in the subjects of this study. However, in the follow-up study, it may be necessary to conduct a comparative study between different age groups.

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