



COPING WITH STIGMA: EXPLORING THE IMPACT OF INFECTION STIGMA AND RECOVERY EXPERIENCES AMONG DEPLOYED HEALTHCARE WORKERS DURING THE COVID-19 PANDEMIC

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ABSTRACT – During the COVID-19 pandemic, this study examined the effects of infection stigma and recovery stories on 112 deployed healthcare workers at two major BFP-managed facilities: the Filinvest Quarantine Tent Mega Temporary Monitoring and Treatment Facility in Alabang, Muntinlupa, and the Philippine Arena Mega Swabbing Facility in Bocaue, Bulacan. The research aimed to ascertain the levels of perceived stress and recovery experiences among the BFP personnel deployed during the COVID-19 pandemic, and to formulate a comprehensive, long-term stress recovery program tailored for BFP healthcare workers deployed during the pandemic. A descriptive-correlational methodology was employed, utilizing standardized assessments such as the Infection Stigma Scale, Perceived Stress Scale, and Recovery Experience Questionnaire. Employing a significance level of 0.05 for two-tailed tests, the results underwent statistical analysis incorporating metrics like frequency, percentage, mean, standard deviation, and the Pearson correlation coefficient (r). The findings revealed that BFP personnel deployed to the two facilities experienced a moderate level of both internal and external infectious stigma, coupled with emotions of guilt, disappointment, rejection, and embarrassment from the community due to their roles as COVID-19 healthcare professionals. The community stigmatization resulted in moderately high levels of perceived stress, primarily driven by task demands and pressures exceeding their knowledge and personal safety. Healthcare personnel adopted psychological detachment as a recovery strategy amidst moderate to high stress levels. However, their ability to regain control and engage in leisure activities as recovery strategies declined. Notably, stress, whether internal (self-perception) or external (from external sources), consistently correlated with an increase in the stigma associated with infection. During recuperation, healthcare providers who faced infection-related stigma (internally or externally) exhibited greater psychological distance. Additionally, activities associated with relaxation, such as watching movies, listening to music, or meditating, significantly contributed to reducing feelings of shame or negative self-perception. Furthermore, an improved recovery experience was linked to lower levels of internal stigmatization, while a better sense of control as a recovery technique was associated with reduced overall infection stigma. These insights can inform the development of targeted interventions and support programs for healthcare workers facing similar challenges in the future.

Keywords: healthcare workers, pandemic, social support

To cite this paper: San Juan, J.M., Tabasa, P.F.C., Lee, B.C., Respicio, C.T.Jr. & Buot, M.M. 2024. Coping with Stigma: Exploring the Infection Stigma and Recovery Experiences Among Deployed Healthcare Workers During the COVID-19 Pandemic. *Journal of Nature Studies*. 23(1), 18-34.

INTRODUCTION

The COVID-19 epidemic has far-reaching implications that affect every aspect of people's lives. Aside from the immediate issues, a complex web of indirect societal consequences has arisen, altering daily routines and needing adaptive strategies to manage the new normal. Adding to these issues is the emergence of an "infodemic," a phrase used to describe the overwhelming flood of information that includes facts, rumors, and misinformation. This information overload has been crucial in increasing public adherence to hygiene, health, and safety measures (Balakrishnan et al., 2023; Horváth, 2022; Ishizumi and Yau, 2023). Unfortunately, this wealth of information has also become a double-edged sword, contributing to the spread of negative emotions within communities, such as increased levels of fear, rage, and hostility. Significantly, the effects of the infodemic extend beyond emotional discomfort.

Stigmatization has become a harsh reality not just for persons infected with the virus, but also for their relatives and healthcare personnel, who are targeted for discrimination. Instances of this stigmatization have received extensive attention, both domestically and globally, bolstered by media coverage. Stigmatization is a complex process characterized by the attribution of specific attributes to individuals, which are then linked to negative qualities (stereotypes), evoking distressing emotional responses (Cénat et al., 2021; Taylor et al., 2020). Furthermore, the emergence of stigmatization has a direct connection to the social, political, and economic dynamics of the excluded group. The World Health Organization (2020) emphasizes that social stigma manifests as a negative societal judgment directed at an individual or a group.

This detrimental bias often materializes in the form of discrimination. The repercussions of such discrimination are rooted in its accompanying behaviors. The unfolding panic catalyzed by phenomena like the COVID-19 pandemic has given rise to an array of distinctive strains of social stigma (Corrigan et al., 2006; WHO, 2020). Quin et al., (2020) revealed that use of avoidance coping was associated with perceived stress, traumatic stress and stigma while specific factors associated with perceived stress and traumatic stress at time point two were living alone, less problem solving, and seeking social support.

In general, this study would like to assess the journey of BFP personnel at Philippine Arena Mega swabbing and Filinvest Quarantine Tent, Mega Temporary Treatment and Monitoring Facility during pandemic deployment. Specifically, the study would like to identify the level of infection stigma; determine the level of perceived stress; and to document the recovery experience (psychological detachment, relaxation, mastery).

METHODOLOGY

Research Design

Using the descriptive research design, several survey instruments were used specific for each objective. The use of various methods such as but is not limited to key informant interviews, the standardized tools and documentary analysis were used to gather significant information relevant to the variables being studied. Focused group discussions, consultations and interviews with key informants were also conducted to assure the validity of the result of this study.

Respondents

The respondents of the study were the BFP healthcare workers deployed at the two (2) main facilities for six (6) months (November 2021 to April 2022): Philippine Arena Mega Swabbing Facility, Bocaue, Bulacan and Filinvest Quarantine Tent Mega Temporary Treatment and Monitoring Facility (FQT,

MTTMF) located at Filinvest Tent, Alabang, Muntinlupa (Table 1). The Bureau of Fire Protection (BFP) of the Philippines was tasked to assist the COVID-19 virus swabbing facilities as directed by the Philippine government. The survey was conducted via Google Forms from March 31 to April 7, 2022.

Table 1. Percentage distribution of the BFP personnel on the two facilities using the simple random sampling method.

OFFICE	POPULATION	SAMPLE	PERCENTAGE
Philippine Arena Mega Swabbing Facility	324	70	21.60%
Filinvest Quarantine Tent, MTTMF	184	42	22.83%
TOTAL	508	112	22.05%

Majority of the respondents from Philippine Arena Mega Swabbing Facility ($f=54$ or 77.14%) and Filinvest Quarantine Tent ($f=33$, 78.57%) were on their early adult transition ages 22-34 years, with a frequency of 54 and percentage distribution of 77.68% and generating a mean age of 32.77 ($SD=4.325$) (Table 2). More than half of the respondents were males ($f=68$, 60.71%) who may be committed (married) or single in terms of civil status in which those from Philippine Arena Mega Swabbing Facility were mostly single ($f=34$, 48.57%) compared to those deployed at Filinvest Quarantine Tent who were mostly married ($f=28$, 66.67%). Despite differences in terms of health care workers' existing relationship with significant others, still those who are married ($f=61$, 54.46%) occupy the highest distribution among the respondents. In terms of the work profile of the respondents, Table 2 showed that majority of the health care workers who were deployed were in line with the Medical/Allied Health profession ($f=95$, 84.82%) which was expected that Medical/Allied Health profession (nurses, medical technologist, doctors, physical, therapist, psychologist) outnumbered those technical personnel of the BFP who are usually but not limited to criminologist, teachers and engineers by profession. For the duration of deployment of the respondents from either Philippine Arena Mega Swabbing Facility ($f=39$, 55.71%) and Filinvest Quarantine Tent ($f=20$, 47.62%) it was reflected that majority have been deployed for 12 to 18 months with an overall frequency of 59 or equivalent to 52.68% generating a mean duration of deployment of 15.86 ($SD=5.805$) months which is at the average of a 12 to 18 months deployment.

Research Instruments

Infection Stigma Scale. To measure the level of infection stigma, Infection Stigma Scale (Elgohari et al., 2021) was used after receiving the approval of the author. A Likert Scale ranging 1-5 in which 1 is equivalent to strongly disagree, 2 disagree in which 3 is neutral, 4 is agree and 5 is strongly Agree. To determine subscale score, the sum of the responses of each subscale's items was taken. Higher scores indicate higher levels of stigmatization (11 being low and 55 high level). The scale has 2 aspects to measure the Internal aspect stigma and the external aspect stigma which is represented by the 11 items:

- Internal Aspects Stigma – Self feeling in which the individual was affected by an infection experience. Internal outcomes can include low self-esteem, feelings of shame, and embarrassment. A total score was computed and its rating scale can be interpreted as high level for high scores (7 below being low, 8-13 moderate, and 14-20 high level).

Table 2. Profile of the respondents' distribution represented via mean, standard deviation and frequency.

	Philippine Arena Mega Swabbing Facility N = 70		Filinvest Quarantine Tent MTTMF N = 42		BFP Health Care Workers N = 112	
Age	f	%	f	%	F	%
Early Adult (22-34y/o)	54	77.14	33	78.57	87	77.68
Early Middle Age (35-44y/o)	14	20.00	7	16.67	21	18.75
Late Middle Age (45-64)	2	2.86	2	4.76	4	3.57
Mean Age	32.16		33.38		32.77	
Standard Deviation (SD)	3.82		4.83		4.325	
Gender						
Male	57	81.43	11	26.19	68	60.71
Female	13	18.57	31	73.81	44	39.29
Civil Status						
Single	34	48.57	12	28.57	46	41.07
Married	33	47.14	28	66.67	61	54.46
Separated	2	2.86	1	2.38	3	2.68
Annulled	0	0	1	2.38	1	0.89
Widowed	1	1.43	0	0.00	1	0.89
Line of Profession						
Technical (Not Medical/Allied Health Professional)	13	18.57	4	9.52	17	15.18
Medical/Allied Health Professional	57	81.43	38	90.48	95	84.82
Facility Assignment						
Administrative	4	5.71	8	19.05	12	10.71
Operations	59	84.28	23	54.76	82	73.21
Assigned to both Admin and Operations during deployment	7	10.00	11	26.19	18	16.07
Regional Assignment						
NHQ	1	1.43	5	11.90	6	5.36
NCR	2	2.86	10	23.81	12	10.71
R3	23	32.86	0	0.00	23	20.54
R4A	12	17.14	21	50.00	33	29.46
R4B	4	5.71	6	14.28	10	8.93
R5	3	4.29	0	0.00	3	2.68
R2	7	10.00	0	0.00	7	6.25
R1	13	18.57	0	0.00	13	11.61
CAR	5	7.14	0	0.00	5	4.46
Duration of Deployment						
Less than 6 months	2	2.86	4	9.52	6	5.36
6 to 11 months	12	17.14	4	9.52	16	14.29
12 to 18 months	39	55.71	20	47.62	59	52.68
More than 19 months	17	24.29	14	33.33	31	27.68
Mean (Duration of Employment)	15.56		16.16		15.86	
SD	4.29		7.32		5.805	
COVID-19 Infection						
Never	20	28.57	21	50.00	41	36.61
Once	11	15.71	8	19.05	19	16.96
Twice	28	40.00	13	30.95	41	36.61
Thrice	6	8.57	0	0.00	6	5.36
Four to Five Times	5		0	0.00	5	4.46
Sources of Stigma						
None	7		6		13	
Family	26		3		29	
Relatives	20		14		34	
Friends	22		24		46	
Community/Neighbor	45		30		75	
Co-workers from BFP	27		19		46	

- External Aspects Stigma – Treatment of others from work and neighborhood may have negative impacts on the lives of the infected personnel. This aspect of the scale was covered in items 5 to 11 as external aspects of stigmatization. Sum of the scores were arrived at and rating scale can be interpreted as high level for high scores (12 below being low, 13-24 moderate and 25-above as high level).

Perceived Stress Scale. The 2nd instrument which was adopted from Cohen et al. (1983) gave a different level of stress. It is a well-known stress evaluation tool consisting of 10 questions, and each scale question will help inquire about the respondent's feelings and ideas about their work. The participants will be asked to rate these on a five-point scale (0 = "Never," 1 = "almost never," 2 = "sometimes," 3 = "fairly often," and 4 = "very often"). In the interpretation of the result, scores for questions 4, 5, 7, and 8 were reversed. On these four questions, the scores were changed to: (0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0). The scores were then added in order to get the level of perceived stress of the respondents. Interpretation of overall scores were based on the range from 0 to 40 with higher scores indicating higher perceived stress, scores ranging from 0-13 would be considered low stress, scores ranging from 14-26 would be considered moderate stress and scores ranging from 27-40 would be considered high perceived stress.

Recovery Experience. The researchers adapted Sonnentag and Fritz (2007) Recovery Experience Questionnaire as instruments to measure the level of recovery experience. It is divided into four subscales with 16 questions, each evaluating a distinct aspect of recovery. Psychological detachment, relaxation, mastery, and control are all aspects of the experience. The respondents were asked to rate all items on a five-point scale, ranging from 1 "never", 2 "rarely", 3 "sometimes", 4 "often" and to 5 "always". Internal consistency of the four subscales was satisfactory (Psychological detachment: $\alpha = .84$, relaxation: $\alpha = .85$, mastery: $\alpha = .79$, control: $\alpha = .85$).

Sonnentag and Fritz (2007) identified the factors as indicated in the theory of effort recovery with the four subscales defined, *psychological detachment from work* – includes items 1-4. The capacity for individuals to disengage from work tasks, feeling a sense of distance from the workplace and naturally orienting an individual's thoughts to other activities. *Relaxation* – includes items 5- 8 in which the authors discussed that relaxation exercises can curb the deleterious effects of stress at work, ultimately curbing fatigue from work and fostering life satisfaction. In terms of *Mastery*, which includes items 9-12 and discusses the activities that were challenging and enlightening and can facilitate learning as well as improve the degree to which individuals feel competent. The experience of mastery in the afternoon has been shown to enhance energy the next morning. Finally, *Control* which includes 13-15 and covers when individuals experience a sense of control of choice over their lives outside work, recovery is enhanced. The effects of effort recovery include boost positive emotion, provide relaxation, involve connecting with valued others, allow an individual to mentally detach from work (no rumination or thinking, planning for work), provide a sense of mastery & achievement. It also enables employees to take micro mental, physical and emotional breaks from work and recoup the energy / resources in a short period of time.

To interpret the level of recovery-experience, scoring from the study by Ding et al. (2020) was adopted. The higher scores indicated better recovery experience. Each subscale was interpreted based on the summative score of items included in the scale 7 being at low level and 20 at high level while generating an overall scale of 16 for low level and 80 as high level of recovery experience. The Cronbach's alpha of overall REQ was 0.90, indicating REQ with a good reliability. The Cronbach's alpha coefficients of psychological detachment, relaxation, mastery experiences, and control were 0.80, 0.87, 0.81, and 0.83, respectively. And in the previous study's Cronbach's alpha of overall REQ was 0.95.35.

Procedure

Quantitative and qualitative methods of collecting data needed in the study were utilized. Permission from the authors of the standardized tests used in the study was secured before it was used in the research. Some comments, suggestions, and recommendations from the participants were also asked. Key informant interviews to chief of operations of the facilities, facility managers and the deputy task force commander to identify some of the challenges encountered by the BFP healthcare workers during the tour of duty at the facilities as well as some of the issues and concerns raised to the Facility Managers and Office of the Task Force Commander were also done.

Permission to conduct the survey was secured from the Director for Operations/Taskforce Commander, BFP-IATF as well as the Director for Health Service/Facility Manager of Filinvest Quarantine Tent and Chief, Medical Unit/Philippine Arena Mega Swabbing Facility. Additionally, the respondents' written consent was obtained.

Statistics Used

Descriptive statistics were used in this study to measure and summarize the data, as well as to answer the questions and provide an empirical explanation. Pearson r was then applied to determine the significant relationship between variables under study.

RESULTS AND DISCUSSION

Internal and External Aspects Stigma of COVID-19 Infection Stigma Scale

Stigma that a person places on oneself is one of the most dangerous types since internal outcomes can affect self-esteem by lowering its level, feelings of shame, and embarrassment and worst it can also result in physical injuries or mental health issues (Crowe, 2016). Results of the consolidated responses of the healthcare workers deployed at the two facilities for the Internal and External Aspects Stigma for COVID-19 Infection Stigma scale that the level of internal stigma were at moderate level for both Philippine Arena Mega Swabbing Facility ($f=54, 77.14\%$) and Filinvest Quarantine Tent ($f=36, 85.71$) (Table 3). Significant to note that 8.04% of the respondents reported they were experiencing a high level of internal stigma. Furthermore, mean values further showed that a moderate level ($x=10.21, SD=2.94$) of internal stigma can be noted for health care workers from both facilities. The internal stigma illustrated as a self-feeling for those BFP Health care workers affected by COVID-19 infection.

Qualitative statements strongly showed resemblance to Crowe's (2016) findings where respondents reported the existence of shame, disappointments, and embarrassment. For the external aspect of stigma, Table 3 likewise showed that majority of the respondents have moderate level of stigma ($f=86, 76.79\%$), Philippine Arena Mega Swabbing Facility ($f=54, 77.14\%$) and Filinvest Quarantine Tent ($f=32, 76.19\%$), while the overall mean values for external aspects of stigma resulted to a frequency 17.64, $SD=5.37$ or at a moderate level of stigmatization. Crowe (2016) in his study showed that treatment of others from work and neighborhood is negatively impacting the lives of the infected individual (Table 2).

In a self-administered interview conducted to the respondents in which they were asked to share their experiences pertaining to rejection, feeling ashamed as health care workers (HCW) and infected with COVID 19, they reported that:

“When the chance arises to return home, even if I test negative for a virus, it's advisable to do so under the cover of night. This way, I can avoid causing concern among my neighbors

within the community."

"I've been unfairly suspected of being a carrier of the virus in my own municipality simply because of my assignment at the Philippine Arena Mega Swabbing Facility. This unwarranted suspicion has led to discrimination against me, making me feel unwelcome in my own community."

Table 3. Mean, standard deviation, frequency, and percentage distribution of the respondents' COVID-19 Infection Stigma.

LEVEL OF STIGMA	Philippine Arena Mega swabbing Facility N = 70		Filinvest Quarantine Tent MTTMF N = 42		BFP Health Care Workers N = 112	
	F	%	f	%	F	%
Internal Stigma						
Low Level (1-7)	10	14.29	3	7.14	13	11.61
Moderate Level (8-13)	54	77.14	36	85.71	90	80.36
High Level (14 above)	6	8.57	3	7.14	9	8.04
Mean- Internal Stigma	10.32		10.09		10.21	
Standard Deviation (SD)	3.2		2.68		2.94	
External Stigma						
Low Level (1-12)	10	14.29	8	19.05	18	16.07
Moderate Level (13-24)	54	77.14	32	76.19	86	76.79
High Level (25 above)	6	8.57	2	4.76	4	3.57
Mean- External Stigma	17.68		17.6		17.64	
Standard Deviation (SD)	5.65		5.09		5.37	
Overall COVID 19 Infection Stigma						
Low Level (1-18)	6	8.57	3	7.14	21	18.75
Moderate Level (19-36)	58	82.86	34	80.95	87	77.68
High Level (36 and above)	6	8.57	5	11.90	4	3.57
Overall Mean-Infection Stigma	28.01		27.69		27.85	
Standard Deviation (SD)	8.31		7.16		7.735	

These statements were validated in an interview conducted by the researchers that one of the challenges encountered during deployment of personnel in which health care workers (HCW) also needed to adjust with the varying local health protocols as agreed in the IATF for the Emerging Infectious Diseases and that their Office exerted the effort and coordinated with the Local officials to consider and assist BFP personnel. But because it is a standing agreement that each locality is free to establish its own rules and safety procedures, BFP Health Care employees were forced to adapt and adhere to the safety procedures, even if it meant paying for the COVID 19 rapid testing and spending 14 days in quarantine at the local facility even with negative test result. Overall infection stigma as shown in Table 3 also resulted in a moderate level of stigmatization ($f=87$, 77.68%) from the BFP health care workers. Further result of the study likewise supported the notion that shame, feeling rejected, social isolation and avoidance of being treated as "nakakahawa" as many respondents reported that it has a variety of effects on persons who were stigmatized, including discrimination-related stress, low self-esteem, and low self-efficacy (Quinn et al., 2006; Corrigan et al., 2006). This external stigmatization experienced by BFP healthcare workers resulted in a low quality of life such as non-socializing, no self-confidence or even disease concealment or no proper self-care.

In addition, it was found out that higher perceived stigma level was associated with higher levels of perceived stress and post-traumatic symptoms, while avoidance as a coping strategy was associated with higher levels of perceived stress, traumatic stress symptoms, and perceived stigma. Stigmatization can have a variety of effects on persons who are stigmatized, including discrimination-related stress, low self-esteem, and low self-efficacy.

Perceived Stress of the Respondents

The 112 BFP Health Care workers who had experienced stigmatization, same groups reported to have been experiencing stress (Table 4). Majority of healthcare workers have a moderate level of stress ($f=77$, 68.75%) for both Philippine Arena Mega Swabbing Facility ($f=44$, 62.86%) and Filinvest Quarantine Tent ($f=33$, 78.57%).

Further reflected that the mean value of perceived stress among the respondents in general also yielded a frequency of 15.44 ($SD=4.71$) considered to be at a moderate level of stress. This stress would probably a result of the deployment experiences of HCW most especially when they are confronted with the demands to perform tasks and pressures that are out of proportion to knowledge and capacity in which variable and changing workloads were a challenge and seemed out of their capability knowing that they are not practicing their profession in the medical field for so long.

Table 4. Percentage distribution of the respondents' perceived stress.

LEVEL OF STRESS	Philippine Arena Mega Swabbing Facility N=70		Filinvest Quarantine Tent, MTTMF N=42		BFP Health Care Workers N=112	
	F	%	f	%	F	%
Perceived Stress Scale						
Low Level (0-13)	26	37.14	8	19.05	34	30.36
Moderate Level (14-26)	44	62.86	33	78.57	77	68.75
High Level (27 above)	0	0.00	1	2.38	1	0.89
Mean Level of Perceived Stress	17.14286		14.43		15.44	
Standard Deviation (SD)	4.431		4.60		4.71	

As shown in tabulated quotes from the respondents in Table 5, most of the respondents claimed that their experiences were causing stress. This was confirmed in an interview conducted with the key informants of the facilities where the health care workers were deployed. They both narrated that during the tour of duty which had been longer due to the requirement to undergo quarantine period and swabbing which would take additional days for the results to be released (minimum of 1 day to 5 days).

Consequently, Table 5 presents an overview of the situations that healthcare workers at both sites reported as making their job more stressful. They also reported feeling alone, burdened by psychiatric issues, and afraid of getting a positive COVID-19. The result of the test administered and the reported information of the respondents showed that a variety of factors at work may cause stress in which Quin et.al (2020) stated that the higher perceived stigma level was associated with higher levels of perceived stress and post-traumatic symptoms.

Table 5. Tabulated quotes from the healthcare workers from Philippine Arena Mega Swabbing and Filinvest Quarantine Tent Mega Temporary Treatment and Monitoring Facilities.

Respondent Number	Quotes from the Respondents
66	“too much workload due to many patients”
63	<p>“di mo alam kung anong mangyayari everytime on duty I am always afraid of the unknown”</p> <p>(You never know what will happen every time you are on duty, and I am always afraid of the unknown.)</p>
74	<p>“pag iswab ka na at maghihintay ka ng result before and after duty, stressful”</p> <p>(If I need to get a swab test, the waiting time for the results before and after duty, I felt extremely stressful.)</p>
16	“Not knowing if I'll get home to my family”
28	<p>“Na experience ko nung ng positive ako sa covid 19 na mag-isip ko na pano kung hindi kayanin ng katawan ko ang virus at mamatay ba ako at abo nalang ako iuwi sa family ko.”</p> <p>(I experienced being positive for COVID-19 and thought about what would happen if my body couldn't cope with the virus. I wondered if I might die, and if my only remains would be brought home to my family as ashes.)</p>
67	“Sudden change of instructions undermining the laid out and effecient system in delivering specialized tasks”
74	“Untoward reports from home while on duty e.g. death of parent or member of the family”, and the “Dwindling financial allowance to support on duty expenses and at home”
79	<p>“mahabang quarantine period sa facility before iswab and after ka iswab and paguwi pa po sa bahay mo”</p> <p>(long quarantine period at the facility before swabbing and after swabbing and before going to our home)</p>
61	<p>“mga tsimosang kapitbahay nagpapadagdag ng stress”</p> <p>(Gossipy neighbor added to stress)</p>
81	In some areas the community is very much against the testing because they fear that we might be bringing them the virus that's why it came to a point that we are escorted by the military in every barangay that we test because we received some threats coming from some people who do not want to be tested.

1. The Level of Recovery Experience of the Respondents in Terms of Relaxation, Mastery, Control, and Psychological Detachment

In terms of the respondent's psychological detachment as a recovery experience, data in Table 6 showed that majority reported to have a moderate level ($f=81$, 72.32%) with a mean value of 10.74 ($SD=3.00$) of recovery experience. The complete psychological detachment or disconnection from work in physical and mental terms after the tour of duty allowed the responders to engage in any activities nor thinking of workplace during free time. Sonnentag & Fritz (2007) emphasized that detaching selves from work for a while would made an employee more productive when returning to work. As reported by the respondent's majority engaged selves with being a father, mother, wife or husband and focusing on the needs of the family or children such statements were "*I use my deployment break to teach and prepare my daughter as incoming preschooler. And sometimes I go out with my friends.*"

In terms of relaxation results showed that majority of the respondents from either the two sites used their off-duty schedule by engaging in relaxing activities within a high level of recovery experience ($f=81$, 72.32%) with its mean value of 15.54 ($SD=2.94$). Some of the activities which most of them mentioned were "*watching inspirational events or Netflix or listening to music or listening and praying Christian music*".

On the other hand, mastery as a recovery experience constitutes greater number of responses for high level of recovery experience from the majority of the respondents from either Philippine Arena Mega Swabbing Facility ($f=53$, 75.71%) and Filinvest Quarantine Tent ($f=33$, 78.57%). In general, 86 of the respondents or 76.79% had high level mastery in the recovery experience with a mean value of 15.60 ($SD=2.24$). In an open-ended question on other things or activities respondents did to recover after work, some of the report indicated that they engaged in "*new sports, basketball, playing mobile games or online games.*" According to Sonnentag & Geurts (2009) and Sonnentag & Fritz (2007), activities that imply a greater effort for the individual's to engage included those that offer the opportunity to face challenges, learn new things or expand horizons this may include learning a new hobby, practice an extreme sport and favor positive moods that facilitate recovery.

For the control over leisure time, majority of the respondents reported to have high level of control recovery experience from either Philippine Arena Mega Swabbing Facility ($f=44$, 62.86%) and Filinvest Quarantine Tent ($f=22$, 52.38%) (Table 6). A high level of recovery experience was indicated by the overall mean value of 14.58 ($SD=2.23$), which may be related to the ability of healthcare workers to choose leisure activities and stay organized. One respondent listed his priorities for his schedule of activities, ranking them as follows: "first thinking of great moments, second scheduling an outing, next fishing, then basketball with friends, and in between talking with friends and family." This way of programming leisure activities empowers the healthcare worker to be in control of his free time to be significant. Sonnentag & Geurts (2009) and Sonnentag & Fritz (2007) mentioned that the perception of control not only reduces anxiety, but also acts as an external resource that facilitates the development of activities which may promote recovery.

Finally, the overall recovery experience of the majority of the respondents were high ($f=67$, 59.82%) from either Philippine Arena Mega Swabbing Facility ($f=42$, 60%) and Filinvest Quarantine Tent ($f=25$, 59.52%). Its overall mean value of 56.46 ($SD=7.00$) corresponds to a high level of recovery experience in all aspects of activities.

Table 6. Percentage distribution of the respondents' recovery experience.

SCALES OF RECOVERY EXPERIENCE	Philippine Arena Mega Swabbing Facility N=70		Filinvest Quarantine Tent, MTTMF N=42		BFP Health Care Workers N=112	
	f	%	F	%	F	%
Psychological Detachment						
Low Level (1-7)	15	21.43	2	4.76	17	15.18
Moderate Level (8-13)	45	64.29	36	85.71	81	72.32
High Level (14 above)	10	14.29	4	9.52	14	12.50
Mean Psychological Detachment	10.29		11.19		10.74	
Standard Deviation (SD)	3.31		2.69		3.00	
Relaxation						
Low Level (1-7)	2	2.86	0	0.00	2	1.79
Moderate Level (8-13)	18	25.71	11	26.19	29	25.89
High Level (14 above)	50	71.43	31	73.81	81	72.32
Mean Relaxation	15.33		15.74		15.54	
Standard Deviation (SD)	3.16		2.71		2.94	
Mastery						
Low Level (1-7)	0	0.00	0	0.00	0	0.00
Moderate Level (8-13)	17	24.29	9	21.43	26	23.21
High Level (14 above)	53	75.71	33	78.57	86	76.79
Mean Mastery	15.77		15.43		15.6	
Standard Deviation (SD)	2.38		2.10		2.24	
Control						
Low Level (1-7)	0	0.00	0	0.00	0	0.00
Moderate Level (8-13)	26	37.14	20	47.62	46	41.07
High Level (14 above)	44	62.86	22	52.38	66	58.93
Mean Control	14.9		14.26		14.58	
Standard Deviation (SD)	2.25		2.21		2.23	
Overall Recovery Experience						
Low Level (1-27)	0	0.00	0	0.00	0	0.00
Moderate Level (28-54)	28	40.00	17	40.48	45	40.18
High Level (55 above)	42	60.00	25	59.52	67	59.82
Mean Overall Recovery Experience	56.29		56.62		56.46	
Standard Deviation (SD)	7.33		6.66		7.00	

2. Significant Relationship Between Recovery Experience, Level of Perceived Stress, and Level of Infection Stigma

A significant relationship of perceived stress level with the scales of recovery experience (psychological detachment, relaxation, mastery, control) and the aspects of infection stigma which was tested at 0.05 level of significance at two-tailed tests was recorded (Table 7). Although this study failed to establish a correlation between perceived stress level and relaxation (p value=0.774), mastery (p value=0.315) and the overall recovery experience (p value=0.774), hence perceived stress has no significant relation with relaxation, mastery and recovery experience in general. However, perceived stress level has established a correlation with psychological detachment (p value=0.039, r = 0.20) at a low degree of correlation. Perceived stress has a significant relationship with psychological detachment of the recovery experience.

Table 7. Significant relationship between recovery experience and perceived stress of respondents.

RECOVERY EXPERIENCE	PERCEIVED STRESS			
	Pearson r value	P value	Decision	Interpretation
Psychological Detachment	0.20	0.039	Reject null	Significant, Low degree
Relaxation	0.027	0.774	Accept null	Not significant
Mastery	-0.096	0.315	Accept null	Not significant
Control	-0.254	0.007	Reject null	Significant, Low negative degree
Overall Recovery	-0.014	0.885	Accept null	Not significant
Internal Stigma	0.964	< .001	Reject null	Significant, High degree
External Stigma	0.878	< .001	Reject null	Significant, High degree
Overall Stigma	0.708	< .001	Reject null	Significant, High degree

* N=112, 0.05 level of significance, two-tailed test

Results can be significant so as to support that as BFP Healthcare workers were under stress or experiencing an increased level of stress their psychological detachment as recovery approach also increases. In terms of the correlation between stress level and control of leisure as a recovery experience data showed that perceived stress significantly correlates with control (p value=0.007, r = -0.254) at low degree in a negative direction. This would imply that as the BFP Healthcare workers have an increased stress level their control measures towards recovery decreases affecting their capacity to focus recovery directions using leisure time activities.

For the correlation between perceived stress level and infection stigma, data showed that a strong correlation can be established from all the variables, with internal stigma (p value=< .001, r = 0.964), external stigma (p value=< .001, r = 0.878) and overall stigma (p value=< .001, r = 0.708) in which a high degree of relationship existed from stress level and aspects of infection stigma and overall stigma of the respondents. Result would have a relevant implication that an increase in perceived stress level also leads to an increased level in the infection stigma at either internal or external direction of stigmatization.

3. Significant Relationship Between Recovery Experience and Infection Stigma

The significant relationship between the scales of recovery experience and aspects of infection stigma showed that psychological detachment had a significant relationship with internal aspects (p value=0.397, $r = < .001$) and external aspects of stigma (p value=0.397, $r = < .001$) both operating at moderate degree of relationship while overall infection stigma also has a significant relationship with p value =0.039 and $r = 0.195$ but with low degree of significant correlation with psychological detachment (Table 8). This only implied that as the BFP Health Care Workers experienced infection stigma whether it's on the internal or external aspects of stigmatization their psychological detachment towards recovery also increases.

In terms of the correlation of relaxation with infection stigma, the researchers were only able to establish a correlation with internal (p -value = 0.047, $r = 0.188$) aspect of stigma among the BFP Healthcare workers deployed at the two facilities which would have an implication that relaxation would have a significant contribution on the internal aspects of stigmatization being experienced by the respondents. It is relevant to record that relaxation is characterized by a state of low activation, associated with pleasant feelings (Hahn et al., 2011) resulting from various activities such as meditating, watching a movie or listening to music (Sonntag & Geurts, 2009). Therefore, it is associated with activities that do not require effort and an aspect of self-feeling or internalization. This would be important to complement the need to recover from the internal stigma experience of BFP healthcare workers.

Researchers on the investigation of correlation between control as a recovery measures and overall infection stigma revealed that a significant relation with p value =0.007 and $r = -0.254$ exist between variables and affirmed that there is significant relationship between control as a recovery measures and overall infection stigma at 0.05 level of significant at two-tailed test.

The case that BFP healthcare workers experience a moderate to high level of infection stigma, however, would be significantly impacted by the r value, which was on the negative scale. The result could lead to feelings of shame, unease, and rejection from the community, neighbors, or others, as may be identified when the self-feeling was being challenged. It could also cause them to disengage from any direction towards recovery, including the ability to choose what to do during leisure time. On the other hand, the respondents' experience of recovery may be less affected by the overall infection stigma if there is a high degree of control.

Overall recovery experience has established a significant relationship with internal stigma with p value = 0.00 and $r = -0.254$ directing the researchers to reject null hypothesis and accept alternative hypothesis that there is significant relationship between recovery experience and internal stigma at 0.05 level of significance at two-tailed tests. While recovery measures and activities increase and observe, the level of internal stigma decreases its impact on the well-being of healthcare workers.

SUMMARY AND CONCLUSION

In summary, 8.04% of healthcare personnel reported having encountered high levels of internal stigma, whereas the majority of respondents reported a moderate level of external and internal infection stigma for the Filinvest Quarantine Tent and the Philippine Arena Mega Swabbing Facility. The majority of respondents had a moderate level of stigmatization as a result of being a healthcare worker, according to the overall infection stigma level. According to reports, stigmatization stemmed from feelings of embarrassment, rejection, shame, and disappointment that COVID-19 healthcare personnel went through. The majority of causes of stigmatization came from neighbors or the community.

Table 8. Significant relationship between recovery experience and infection stigma and its aspects.

	INTERNAL STIGMA ASPECTS				EXTERNAL STIGMA ASPECTS				OVERALL INFECTION STIGMA			
	Pearson r value	P value	Decision	Interpretation	Pearson r value	P value	Decision	Interpretation	Pearson r value	P value	Decision	Interpretation
RECOVERY EXPERIENCE												
Psychological Detachment	0.397	< .001	Reject Ho	Significant Moderate degree	0.352	< .001	Reject	Significant Moderate degree	0.195	0.039	Reject	Significant Low degree
Relaxation	0.188	0.047	Reject	Significant Low degree	0.172	0.070	Accept	Not significant	0.027	0.774	Accept	Not significant
Mastery	0.004	0.968	Accept	Not significant	0.065	0.494	Accept	Not significant	-0.096	0.315	Accept	Not significant
Control	-0.046	0.631	Accept	Not significant	-0.168	0.077	Accept	Not significant	-0.254	0.007	Reject	Significant Low degree
Overall Recovery	-0.280	0.003	Reject	Significant Low negative degree	-0.159	0.094	Accept	Not significant	-0.014	0.885	Accept	Not significant

* N=112, 0.05 level of significance, two-tailed test

The majority of healthcare personnel rated their perceived stress levels for the Filinvest Quarantine Tent and the Philippine Arena Mega Swabbing Facility as moderate. The majority of healthcare workers admitted that they were afraid of the unknown, that they had too much work because of the surge in patients, that their workloads were inconsistent and changing and sometimes beyond their capacity because they had not been practicing their profession for a long time, that they received inappropriate reports from home while on duty, and that their time in isolation contributed to their stress.

The researchers failed to establish a correlation between perceived stress level and relaxation, mastery and the overall recovery experience. However, perceived stress level has established a correlation with psychological detachment at a low degree of correlation in which this finding can be significant so as to support that as BFP healthcare workers were under stress or experiencing an increased level of stress their psychological detachment as recovery approach also increases. In terms of the correlation between stress level and control of leisure as a recovery experience data, it was found out that perceived stress level had a significant relationship with control at low degree in a negative direction. This finding can be supported with the BFP healthcare workers increase in stress level affecting their control measures towards recovery by decreasing their capacity to focus recovery directions using leisure time activities.

The study's findings that psychological detachment has a significant relationship with both internal and external aspects of stigma and that both operate at a moderate degree are supported by the correlation between the scales measuring recovery experience and aspects of infection stigma. Additionally, the correlation between overall infection stigma and psychological detachment as recovery experience was found to be at a low degree, which may help to explain why BFP Health Care Workers experienced infection stigma, whether it be on the internal or external aspects of stigmatization.

RECOMMENDATION

In addition to their work as peer health educators for COVID-19 and their involvement in workplace safety and health promotion, BFP staff members continue to look to the government for assistance in fighting the recent virus infection. implementing efficient management practices to stop stigma, offering suggestions for ways to spread awareness of the detrimental effects of stigmatization, and appropriately managing working circumstances. Fulfilling the security, efficiency, autonomy, and collaborative connection needs of BFP staff will increase their motivation and output. An employee's motivation to work may increase if local incidents of employee stigma are properly documented or cited. For a period of six months, BFP employees who work in the health care sector may be temporarily transferred to less demanding jobs or tasks in order to address adaptations made after their deployment to the facility. As a backup strategy, stress aid kits should be implemented and distributed to BFP employees, especially those stationed at health care facilities who experienced stress and stigma during the pandemic. These kits can also be utilized as a last resort for dealing with psychological distress brought on by the demands of public service job.

ACKNOWLEDGEMENT

Grateful always to Fire Senior Superintendent Dr. Gary B. Balita, Fire Chief Superintendent Belinda B. Ochave, retired Fire Chief Superintendent Herbert B. Cesar, and to all our BFP respondents.

STATEMENT OF AUTHORSHIP

All authors were involved in conceptualizing the study. The first four authors collected the data and prepared the initial report while the fifth author oversaw the procedure and provided insightful criticism to help the paper get better.

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