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FACTORS AFFECTING THE PSYCHOLOGICAL HEALTH OF COMMUNITY HEALTH WORKERS AMID THE PANDEMIC

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Abstract *The outbreak of the coronavirus in late 2019 and WHO's declaration of it as a global pandemic followed by a nation-wise lockdown posed a severe threat to the mental health and well-being of the people. The fear and ambiguity arising from the emergency and the need to fight an unknown situation triggered fear and confusion in the minds of the people. The disruption caused by the pandemic has taken a toll on the psychological health of individuals, more specifically the healthcare workers. The community health workers are the unsung heroes who have fought the emergency with utmost courage, dedication, and sincerity. This article aims to find the factors affecting the psychological health of these workers who provided basic healthcare services to society. Data was collected from 227 Anganwadi and ASHA workers (community health workers) using a structured questionnaire with a five-point Likert scale. The relation between the endogenous variable (psychological health) and exogenous variables (work-family conflict, family-work conflict, work satisfaction, and family satisfaction) was assessed using exploratory and confirmatory factor analysis. A model was developed using structural equation modelling explaining the relationships. EFA generated five factors which are in line with the theoretical proposition. Sample adequacy was tested using KMO. The research findings show a positive and significant relationship between the endogenous and the exogenous variables.*

Keywords: *Psychological Health, Work Satisfaction, Family Satisfaction, Work-Family Conflict, Family-Work Conflict, Community Health Workers, Structural Equation Modelling*

INTRODUCTION

Psychological health is a crucial element of the overall well-being of an individual. A negative mental state is associated with dissatisfaction, unhappiness, stress, worry, depression, and so on. Prolonged stress can even manifest as physical illness. With the outbreak of the coronavirus, the work-life and the family-life were entirely disrupted. It had given rise to ambiguity, fear, imbalances, and rescheduling of the normal day-to-day activities for every individual, thereby disrupting the normal course of life. It has disturbed the work-life balance, leading to overlapping responsibilities, roles, and duties. The work-life imbalance has led to various adverse consequences relating to work-life conflict, family-work conflict, and stress burnout, which has taken a toll on the well-being and mental health of everyone. The pandemic, followed by the lockdown, has blurred the boundaries between the work-life domain and family-life domain, thereby having an overlap. The prevalent situation has led to uncertainty and disequilibrium. Healthcare professionals are exposed to multiple stress factors within their work, which may influence their physical, mental, and emotional well-being in negative ways. Work-related stress can negatively impact healthcare providers' professionalism, quality of care delivery, efficiency, and overall quality of life. Therefore, it is critical to identify and mitigate these work-related risk factors to protect the mental health and well-being of healthcare workers (Sovold et al., 2021), which has been further exacerbated by the medical emergency due to the pandemic. Healthcare professionals have been under risk all over the world since they were in direct contact with the patients; many healthcare professionals became ill and lost their life (Ayar et al., 2021). Thus, it is important to re-visit the psychological state of the health workers in particular. Many frontline health workers in lower-income countries are predominantly women, and are therefore typically at the bottom of the health system hierarchies, leaving them with limited autonomy and at elevated risk of burnout. Anganwadi workers and the ASHA workers in India, being the frontline voluntary health workers, were involved in delivering health-related amenities at the grass-root level. They are responsible for delivering basic health-related services on behalf of the government. Being community health workers, they were actively engaged in combating the pandemic. Various studies across the globe have reported symptoms of depression, workplace burnout, insomnia, fatigue, and distress among these workers. This study is an attempt to investigate their lives and to find the various factors that

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affected their state of psychological health. In the study, factors affecting their psychological health, such as work-family conflict (WFC), family-work conflict (FWC), family satisfaction (FS), and work satisfaction (WS) were studied against the backdrop of the ongoing pandemic.

REVIEW OF LITERATURE

Psychological Health

Psychological health is fundamental to an individual's well-being. It is defined as "a state of well-being in which the individual realises his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community" (WHO, 2005, p.18). According to Goldberg (1972), psychological health can be assessed by "identifying 26 symptoms of anxiety, depression, social dysfunction, and feelings of incompetence and uncertainty". Healthcare professionals with children have psychologically been affected more, the reasons for which have been stated as being exposed to long-term quarantine, fear of infecting their families, having an infected family member, and fear of death (Serrano-Ripoll et al., 2020). Various factors such as irregular working hours, shift working system, role ambiguity, role conflict, lack of occupational safety, excessive or low workload, insufficient wages, and the physical factors arising from the work environment have had negative effects on health professionals during the COVID-19 pandemic (Althobaiti et al., 2020; Enli-Tuncay et al., 2020).

Family-Work Conflict

As per Kahn et al. (1964), role conflict is the "simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other". Family-work conflict arises when family role responsibilities spill over or impede work activities. Studies showed that both types of conflicts are associated with health problems such as psychological strain (Kinnunen et al., 2006; Noor, 2003) depression, and anxiety (Lapierre & Allen, 2006), or lower sleep quality (Williams et al., 2006). Thus, competing demands from both domains can lead to conflict between the two domains. At the family front, the healthcare professionals have the risk of transmitting the virus to their family members and the hardships of taking care of their children due to the closure of nurseries (Chen et al., 2020).

H1: Family-work conflict (FWC) has a significant impact on psychological health (PH).

Family Satisfaction

Terms like 'family satisfaction', 'home-life satisfaction', or 'life satisfaction' have been interchangeably used in literature. Family satisfaction plays an important role in individuals' well-being and can influence employees' work performance. According to Hill (2005), higher levels of family satisfaction can lead to higher levels of work satisfaction, organisational commitment, and improved productivity (Hill, 2005). It was evident that to curb the risk of transmission of the virus to the family members, many healthcare professionals have used "alternative accommodation options, i.e., they remained separate from their family members; consequently, they have been unable to discharge their parental roles and duties and other duties" (Dai et al., 2020).

H2: Family satisfaction (FS) has a significant impact on psychological health (PH).

Work-Family Conflict

An inter-role conflict is a form of role conflict in which the sets of opposing pressures arise from participation in different roles. According to Frone et al. (1992), work-family conflict is of two types: work interfering with family (WIF) and family interfering with work (FWI). WIF occurs when work-related activities spill over or interfere with home responsibilities. Work-life conflict refers to the experience of conflict between work and life domains. *Work-family conflict* occurs when the demands for 'energy, time, or behavioural' of the work role clash with the family role (Greenhaus & Beutell, 1985). Work-family conflict is an inter-role conflict where demands of work and life roles are incompatible in some respect, so participation in a certain role makes it difficult to participate in the other role (Voydanoff, 2005, 827). The COVID-19 pandemic caused serious problems, especially for female health professionals, disturbing the balance between their family life and work life. The increase in the number of patients, followed by extended working hours and shifts, had increased the workload of such professionals.

H3: Work-family conflict (WFC) has a significant impact on psychological health (PH).

Work Satisfaction

Commonly referred to as job satisfaction in literature, it has been defined as a combination of positive or negative feelings that workers have towards their work. Job satisfaction is a complex and multi-faceted concept, which can mean different things to different people (Aziri, 2011). Vroom (1964) defines job satisfaction as affective orientations on

the part of individuals towards work roles which they are presently occupying. According to Spector, job satisfaction has to do with the way people feel about the job and its various aspects. It has to do with the extent to which people like or dislike their job. The importance of job satisfaction specially emerges to surface if people had in mind the many negative consequences of job dissatisfaction, such as a lack of loyalty, increased absenteeism, and so on. High levels of job satisfaction may be a sign of a good emotional and mental state of employees (Spector, 1997). Healthcare professionals were dissatisfied with their work-life balance, and it had negatively affected their well-being (Humphries et al., 2020). Various studies have found that healthcare professionals have faced innumerable difficulties during the pandemic, such as risk of infecting themselves (Chen et al., 2020); obligation to provide healthcare facilities despite the risk of transmission (Baki & Piyal, 2020); and the experience of being stigmatised as a result of having to provide care services for patients with COVID-19 and having to work under difficult conditions due to strict safety measures, long working hours, fear of getting sick and dying, helplessness and despair caused by the deaths of the patients they cared for, and cancellation of leave (Ayar et al., 2021; Bao et al., 2020; Wang et al., 2020a; Xiang et al., 2020).

H4: Work satisfaction has a significant impact on psychological health (PH).

RESEARCH METHODOLOGY

The research was based on primary data. The respondents for the study included Anganwadi workers who worked in the Darjeeling district of North Bengal placed under various projects, and ASHA workers who comprise the grass-root level community workers. The questionnaire consisted of items measuring work-family conflict, family-work conflict, family satisfaction, work satisfaction, and psychological health. Items were measured using a five-point Likert scale, where 1 indicates strongly agree and 5 indicates strongly disagree. Scale items were adapted from previously validated scales in the available literature. Work-family conflict was measured using three items adapted from Niemeyer et al. (1996). Work satisfaction was measured with a three-item scale adapted from Hackman and Oldham (1975). Family-work conflict was measured using a four-item scale adapted from Netemeyer et al. (1996). Family satisfaction was measured using a four-item scale adapted from Diener et al. (1985) and psychological health was measured using a three-item scale adapted from Goldberg (1972). Overall, 300 questionnaires were circulated. However, only 246 questionnaires were received (response rate = 76.67%). After discarding 19 incomplete and invalid questionnaires, 227 responses were found useable and were used for further statistical analysis. To test the conceptual model, structural equation modelling was used.

DATA ANALYSIS AND RESULTS

First, the measurement model was tested to assess the reliability and validity of the constructs. Subsequently, the hypothesised relationship was tested using the structural model. Data were analysed using SPSS and AMOS. An exploratory factor analysis was performed using principal component analysis and varimax rotation. The minimum factor loading was set to 0.40. The communality of the scale, which indicates the amount of variance in each dimension, was also assessed to ensure acceptable levels of explanation. The results show that all communalities were over 0.40.

Table 1: Communalities

	Initial	Extraction
PH1	1.000	.825
PH2	1.000	.784
PH3	1.000	.800
WS1	1.000	.825
WS2	1.000	.763
WS3	1.000	.802
FWC1	1.000	.754
FWC2	1.000	.749
FWC3	1.000	.772
FWC4	1.000	.757
FS1	1.000	.773
FS2	1.000	.734
FS3	1.000	.672
FS4	1.000	.697
WFC1	1.000	.747
WFC2	1.000	.734
WFC3	1.000	.748
Extraction Method: Principal Component Analysis.		

Bartlett's test of whether the correlation matrix is an identity matrix indicates that the variables are completely independent of each other. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) value of 0.911 indicates that the data set is appropriate for factor analysis. Further, Bartlett's test shows a value of 0.000, which is less than 0.005, indicating that the variables are not correlated and are suitable for the data reduction technique.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.911
Bartlett's Test of Sphericity	Approx. Chi-Square	2352.825
	df	136
	Sig.	.000

The total variance explained is 76.096, where the first factor (family-work conflict) determines 18.290 per cent of the variance. The second factor (family satisfaction) provided a 16.635 per cent of the total variance. The third factor (psychological health) and the fourth factor (work-family conflict) determine 14.264 per cent and 13.550 per cent of the variance, respectively, and finally, the fifth factor (work satisfaction) determines 13.356 per cent of the total variances obtained.

Table 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.959	46.816	46.816	7.959	46.816	46.816	3.109	18.290	18.290
2	1.556	9.153	55.969	1.556	9.153	55.969	2.828	16.635	34.925
3	1.258	7.398	63.367	1.258	7.398	63.367	2.425	14.264	49.189
4	1.102	6.480	69.847	1.102	6.480	69.847	2.304	13.550	62.739
5	1.062	6.249	76.096	1.062	6.249	76.096	2.271	13.356	76.096
6	.571	3.357	79.452						
7	.469	2.756	82.209						
8	.435	2.560	84.768						
9	.394	2.318	87.086						
10	.372	2.186	89.271						
11	.345	2.032	91.303						
12	.305	1.797	93.100						
13	.273	1.605	94.704						
14	.259	1.524	96.229						
15	.246	1.448	97.677						
16	.211	1.240	98.917						
17	.184	1.083	100.000						
Extraction Method: Principal Component Analysis.									

Confirmatory factor analysis (CFA) was computed using AMOS to test the measurement models. The model fit measures were used to assess the model's overall goodness-of-fit (CMIN/df, GFI, CFI, TLI, SRMR, and RMSEA); all the values were within their respective common acceptance levels (Ullman, 2001; Hu & Bentler, 1998; Bentler, 1990). The five-factor model (work-family conflict, work satisfaction, family-work conflict, family satisfaction, and psychological health) yielded good fit (Table 1) for the data: CMIN/df = 144.860; GFI = .930; CFI = 0.984; TLI = .980; SRMR = 0.033; RMSEA = 0.038.

Table 4

Measure	Estimate	Threshold	Sources	Interpretation
CMIN	**144.860**	--		--
DF	**109**	--		--
CMIN/DF	**1.329**	Between 1 and 3	(Kline, 1998)	Excellent
GFI	**0.930**	>.90	Hair et al. (2010)	Excellent
CFI	**0.984**	> 0.95	Bentler (1990)	Excellent

Measure	Estimate	Threshold	Sources	Interpretation
TLI	**0.980**	> 0.90	Bentler (1990)	Excellent
SRMR	**0.033**	< 0.08	Hu and Bentler (1990)	Excellent
RMSEA	**0.038**	< 0.06	Hu and Bentler (1998)	Excellent
PClose	**0.888**	> 0.05	Bagozzi and Yi (1988)	Excellent

Reliability

Reliability is the measure of internal consistency of the constructs in the study. A construct is reliable if the alpha (α) value is greater than 0.70 (Hair et al., 2013). Construct reliability is assessed using Cronbach's alpha. The results revealed that the work-family conflict with three items (α = 0.817), work satisfaction with three items (α = 0.864), family-work conflict with four items (α = 0.891), family satisfaction with four items (α = 0.862), and psychological health with three items (α = 0.877) were found to be reliable. Reliability results are summarised in Table 5.

Table 5: Reliability Statistics

Name of the Factors	Abbreviation	No. of Items	Cronbach's Alpha Value
Work-family conflict	WFC	3	.817
Work satisfaction	WS	3	.864
Family-work conflict	FWC	4	.891
Family satisfaction	FS	4	.862
Psychological health	PH	3	.877

Composite reliability for each construct in the study was found to be over the required limit of .70 (Nunnally and Bernstein, 1994). Composite reliabilities ranged from 0.819 to 0.892, above the 0.70 benchmark (Hair et. al, 2010). Hence, construct reliability was established for each construct in the study (Table 5). Convergent validity of scale items was estimated using Average Variance Extracted (Fornell & Larcker, 1981). The average variance extracted values were above the threshold value of 0.50 (Fornell & Larcker, 1981). Therefore, the scales used for the present study have the required convergent validity.

Discriminant Validity

Discriminant validity indicates the extent to which a given construct differs from other constructs (Anderson & Gerbing, 1988). The data were subjected to discriminant validity. Table 6 illustrated the squared correlation coefficient between the constructs. The square root of AVE (bold) in the table was found to be greater than its corresponding correlation coefficients, with the values presented in rows and columns. All these results presented in the table indicate the achievement of discriminate validity as recommended by (Hair et al., 2010). (Table 6).

Table 6: Validity Measures

	CR	AVE	MSV	MAXR (H)	Family-Work Conflict	Work Satisfaction	Psychological Health	Work-Family Conflict	Work Satisfaction
Family-work conflict	0.892	0.673	0.421	0.892	**0.820**				
Work satisfaction	0.863	0.612	0.462	0.867	0.649***	**0.782**			
Psychological health	0.877	0.704	0.442	0.879	0.609***	0.665***	**0.839**		
Work-family conflict	0.819	0.602	0.309	0.825	0.460***	0.528***	0.556***	**0.776**	
Work satisfaction	0.869	0.689	0.462	0.886	0.609***	0.680***	0.661***	0.552***	**0.83**

† $p < 0.100$
* $p < 0.050$
** $p < 0.010$
*** $p < 0.001$

Structural Model

The measurement model was achieved after conducting a validity and reliability analysis. Further, the structural equation model was developed to test the proposed hypotheses in this study. For path analysis, AMOS version 21.0 was used. Fig. 1 shows the results from the analysis, which presents the path coefficients from independent constructs with their corresponding dependent constructs as stated in the research hypothesis.

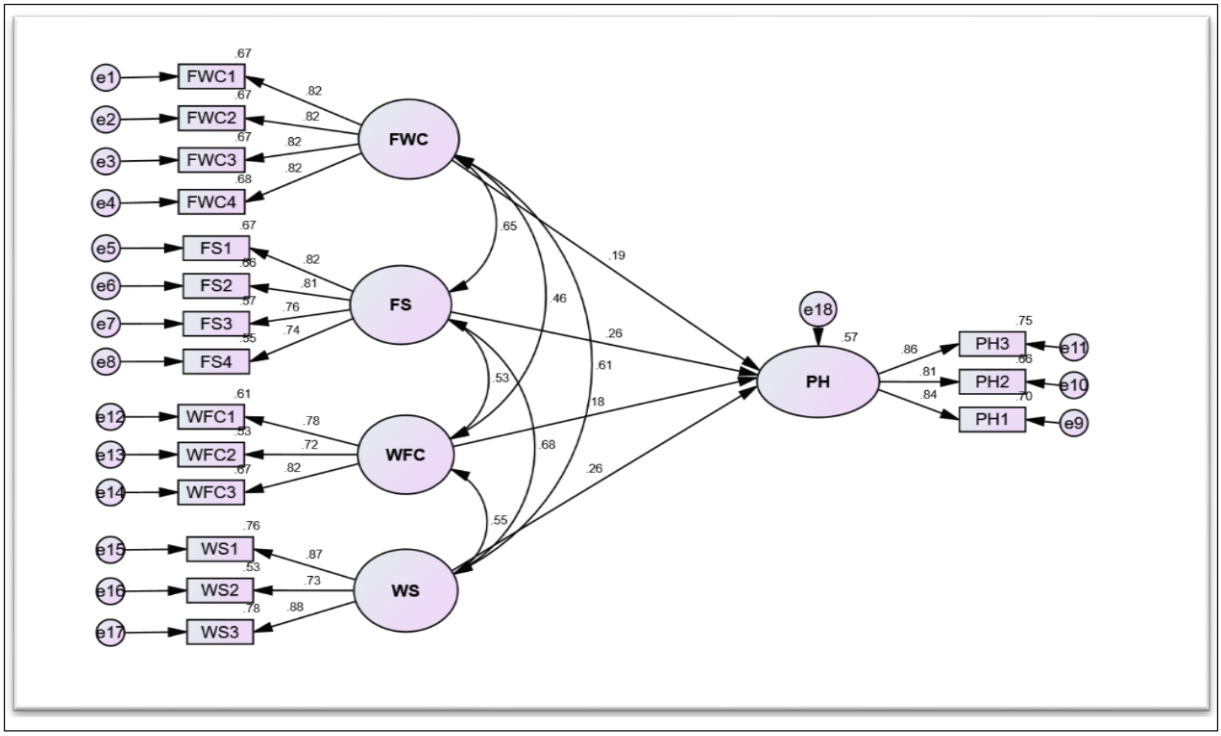

Fig. 1: Path Coefficients for all Hypotheses

The Path Coefficient for all Hypotheses

The results in Table 7 depict the path coefficients of respective constructs with the level of significance. The hypotheses results revealed that all the factors have a significant relationship. The impact of work-family conflict on psychological health was positive and significant (b = 0.195, t = 2.349, p < 0.05), supporting H1. The impact of family satisfaction on psychological health was positive and significant (b = .265, t = 2.770, p < 0.05), supporting H2. The impact of family-work conflict on psychological health was also positive and significant (b = .183, t = 2.396, p < 0.05), supporting H3. Finally, the impact of work satisfaction on psychological health was positive and significant (b = 0.216, t = 2.875, p < 0.05), supporting H4.

Table 7: Hypothesis Testing

Hypothesis	Particulars	Standardised Regression Weights	S.E.	C.R.	P	Remarks
H1	PH <--- FWC	.195	.082	2.349	.019	Supported
H2	PH <--- FS	.265	.106	2.770	.006	Supported
H3	PH <--- WFC	.183	.075	2.396	.017	Supported
H4	PH <--- WS	.261	.083	2.875	.004	Supported

Note: Significance level, where *p < .05; **p < .01; ***p < .001.

CONCLUSION

The study assessed the impact of work-family conflict (WFC), work satisfaction (WS), family-work conflict (FWC), and family satisfaction (FS) on psychological health (PH). The squared multiple correlation was 0.57 for psychological health, which implies that 57% of the variance in psychological health is accounted for by work-family conflict (WFC), work satisfaction (WS), family-work conflict (FWC), and family satisfaction (FS). The research findings established that family-work conflict (FWC) and work-family conflict (WFC) are significant factors in determining psychological health (PH). The revealed relationship between work-family conflict, family-work conflict, and psychological health indicates the research's consistency, which was based on previous experiences, as indicated in the literature review. It implies that the psychological health of the health workers is affected when work-family conflict and family-work conflict occur. Thus, the policymakers should understand that such conflicts should be taken care of if the psychological health of the workers is to be maintained. The organisation should adopt employee wellness programmes, such as adopting work-life balance initiatives to maintain their productivity and health. Again, family satisfaction and work satisfaction have a crucial role to play in maintaining the psychological health of the workers. To achieve work, family, and overall life satisfaction, they must practice self-care. The contribution of health workers in combating the pandemic is irrefutable. Along with the doctors, nurses, and other medical practitioners, they had an immense role in fighting the pandemic and in the vaccination drive, vaccinating the people amid the crisis. It is essential to take care of the healthcare providers, since health is wealth and they are the treasures of health.

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