When Life Meets Livelihood: Impact of Financial Stress on Psychological Well-being of Business Entrepreneurs and Salaried Individuals

Prathama Guha

Megha Rathi, Mrnali Singh and Yoshita Agarwal

Calcutta National Medical College, Kolkata

University of Calcutta, Kolkata

The Covid-19 pandemic and the ensuing lockdown have affected business entrepreneurs and service sector individuals emotionally and financially. We aim to assess financial stress and its impact on quality of life (QOL) and overall stress amongst business entrepreneurs and service employees in the non government sector in Kolkata, a city in eastern India. We explore the protective effects of existential thinking and positive coping styles and compare the efficacy of Acceptance and Commitment Therapy (ACT) and Cognitive Behaviour Therapy (CBT). 1000 business entrepreneurs and service holders between 18-60 years were included in this cross sectional, randomized two group design comparative study. Covid 19 Fear Scale, Perceived Stress Scale, Financial Stress Scale, WHO QOL scale, Brief Cope, Existential concern questionnaire, Existential thinking Scale. ANOVA, ANCOVA, independent sample and paired t tests, hierarchical correlation. Financial stress was higher in businessmen. QOL was higher among service holders. Financial stress had positive association with Covid fear, low per capita income and avoidance coping. QOL had negative association with perceived stress and heightened existential concerns. ACT was more effective than CBT in terms of positive outcome variables. There is significant difference in financial stress and QOL between businessmen and service holders. Structured psychotherapy is an effective intervention.

Keywords: Entrepreneurs, Salaried Individuals, Financial Stress, Psychological Wellbeing, Therapeutic Model.

The ongoing COVID-19 pandemic and the ensuing lockdown are having an unprecedented and unpredictable impact on the world economy and Indian economy is no exception. Researches show that major victims of the COVID-19 outbreak are small and medium-sized enterprises (MSMEs) as compared to large scale industries. (Shafi, Lei, Song & Sarker, 2020). Small scale industries do not possess sufficient financial and managerial resources to handle the challenges of decreased demand, raw material shortage, transportation and supply chain disruptions (Miller-Adams, Bartik & Hershbein, 2021). Additionally, these firms are highly dependent on their routine business transactions and a small number of customers. (Williams& Schaefer, 2013). This sector has been staying afloat with decreased capacity and reduced profit, which has adversely affected their survival (Asgary, Ozdemir & Özyürek, 2020).

There is data to suggest that the salaried people the brunt is being borne by subordinate

employees who are facing higher threats of job loss (McGuinness & Wooden, 2009).

The economic catastrophe is not just in numbers- it has led to financial distress, personal debt, economic vulnerability and psychosocial implications for many individuals. While losing a salaried job is unsettling for one's psychological well-being, losing one's business could be even worse, suggest reports from across the world.

The pandemic has altered working environments. Industrial companies have resorted to new organizational methods (Giorgi, Lecca, Alessio, Finstad, Bondanini, Lulli &Mucci,2020). Due to this changed nature of work pattern, employees and employers have been facing adjustment issues.

Thus, it can be assumed that both entrepreneurs and salaried employees have been psychologically impacted by financial insecurity caused by COVID 19. Financial insecurity refers to the frequency of personal

financial concerns and financial stress that interfere with work. Recent studies show financial security as a factor of the highest significance in ensuring high work performance, psychological wellbeing and quality of life (Kulikowski & Sedlak, 2020).

However, even in these troubled times some people have done better than others – possible mitigating factors being healthier coping styles, resilience and the ability to resort to existential thinking in times of crises.

A body of literature indicates that existential thinking and coping strategies may impact the quality of life and perceived financial stress. Higher use of positive coping strategies and existential thinking have a positive association with QOL (Holubova, Prasko, Ociskova, Kantor, Vanek, Slepecky&Vrbova,2019).

This study aims to assess the impact of financial stress on the overall perceived stress and QOL of large and small business entrepreneurs and salaried (managerial and non-managerial) individuals in the private sector and the protective effect, if any, of specific traits like existential thinking and coping styles. Based on this we also carried out short, structured, targeted psychotherapy interventions -ACT and CBT in these people.

We aimed to provide eight sessions on ACT and Cognitive Behaviour Therapy (CBT) to evaluate the effectiveness of these treatment modules in work related stress, particularly during a pandemic. We believe that ACT may be particularly suited for work settings because individuals need to accept and become flexible towards the changed work environment (Bond & Bunce, 2000). We compared this with a similarly structured module based CBT which is an established therapeutic model for alleviating depressive and anxiety related symptoms (Gautam, Tripathi, Deshmukh & Gaur,2020). and also focuses on instilling positive coping skills (Hofmann, Asnaani, Vonk, Sawyer& Fang, 2012).

Method

This comparative study is divided into two phases. First phase is a cross sectional two group randomized design. Second phase is a pre-test post-test treatment design. The study was conducted from April to August in 2020.

Participants

Phase 1

One thousand adults from Kolkata, West Bengal, India belonging to the age group of 18-60 years were selected through multi-stage stratified random sampling strategy to participate in the study. All industrial and corporate houses were contacted with the help of the West Bengal Chamber of Commerce and Industry (BCCI). List of industries, corporate houses and multinational companies were obtained from the BCCI for all four zones of Kolkata Municipal Corporation. From each zone, 50 industrial houses were selected through random number generation. From the list obtained, 8 employees/entrepreneurs were selected from each company through random number generation and google forms were sent to them. Out of 1600 participants, 600 participants were not included due to incomplete forms or not meeting inclusion criteria. The study comprised of two broad groups, business entrepreneurs and service employees with 500 participants in each group. Groups were further divided. In business sector, large scale and small-scale business entrepreneurs were selected with 250 participants from each sector. In the current study, small scale and large-scale industries were distinguished on the basis of capital investment, establishment size and manpower. For large scale industries, capital investment was over one crore and fixed asset of 10 crore every year having with them over 1 lakh recruited employees. Small scale industry with capital investment and fixed asset of maximum 1 crore per year were included. From service employees, managerial and non-managerial employees comprised of two subgroups with 250 participants in each group. Employees were selected from various industrial houses and corporate sectors in Kolkata. Presence of psychopathology was ruled out using General Health Questionnaire 12 (GHQ 12) and those scoring less than 2 were included. Participants with any chronic physical illness and those having a past history of mental illness were excluded. All the participants were included in the study after obtaining informed consent. All the participants had at least 15 years of formal education and knowledge of English language

in order to be able to participate in our research.

Inclusion criteria for entrepreneurs

Large scale industries registered under Registrar of Companies (ROC), Kolkata, West Bengal, India as large-scale industry, capital intensive, large area occupied, latest technology with huge manpower were included.

Small scale industries registered under Registrar of Companies (ROC), Kolkata, West Bengal, India as small-scale industry, labour intensive, machinery based, small geographical area covered were included.

Inclusion criteria for salaried employees

Managerial employees included in the study were working in the post of manager in a company for at least 5 years & salary above 1 lakh per month.

Non managerial employees included were working in a subordinate position in a company for at least 2 years with salary between 50,000 to 1 lakh per month.

Phase 2

In phase 2, 40 participants from each group, business and service sector were randomly selected to participate in the eight weeks intervention program. Participants were randomly assigned to one of the two eight weeks treatment program- CBT and ACT. There were 20 participants in each treatment group from business and service industry. Pre-test measures was taken for COVID fear, financial stress, quality of life, existential concern and existential thinking along with coping strategies. Two groups in each treatment module were found to be matched in terms of means of psychological scale score, age, gender, education. After randomization, we computed independent samples t-test on both group comparing pre intervention variables. There was no significant difference between the two groups.

Tools

An information schedule was prepared to assess socio-demographic profile along with income and job roles of each participant.

Informed consent was obtained using the standard informed consent form laid down by Indian Council of Medical Research (ICMR,

2017), the apex body governing biomedical research in India.

The General Health Questionnaire 12 (GHQ 12) (Goldberg & Blackwell,1970). is a measure of current mental health. It has been extensively used as a screening tool to determine whether an individual is at risk of developing a psychiatric disorder. A score of 3 determines 'caseness' in GHQ 12. Its reliability coefficient varies between 0.78 to 0.95.

Fear of COVID-19 Scale (FC-19S) (Ahorsu, Lin, Imani, Saffari, Griffiths & Pakpour, 2020) is a short 7 item scale which has a stable unidimensional structure with robust psychometric properties. Initial psychometric results indicated that the FCV-19S had good properties from different types of testing (i.e., CTT and Rasch analysis). The overall score of the summed-up items scores can indicate the severity of the fear of COVID-19. Its test-retest reliability was found to be around .80.

The Perceived Stress Scale (PSS) (Cohen, Kamarck & Mermelstein, 1983) is the most widely used psychological instrument for measuring the perception of stress. The scaleincludes a number of direct queries about current levels of experienced stress. It measures the extent to which life has been experienced as unpredictable, uncontrollable and overloaded for last one month. Cronbach's alpha constantly surpassed the standard .70 threshold ranging from .74-.91.

APR Financial Stress Scale (Heo,Cho & Lee, 2020)is a multidimensional financial stress scale consisting of 29 items measuring financial anxiety, job insecurity, life satisfaction and financial wellbeing. For the scale, each dimension's reliability and validity was measured. The Cronbach's alpha was found to be in between .91 to .95 for all the dimensions of the scale.

The Existential Concerns Questionnaire (ECQ) (Van Bruggen, Ten Klooster, Westerhof, Vos, de Kleine, Bohlmeijer&Glas, 2017) addresses broad existential concerns. It is a 22-item scale with three sub dimensions including death anxiety, general existential anxiety and avoidance. Cronbach's alpha values calculated for the reliability of the scale were calculated as

.92 of the totals. Items are rated on a 5-point Likert scale ranging from 1 (Never) to 5 (Always). Item scores are summed for a total existential concern value. Higher values reflect higher concerns with existential issues.

Scale for Existential Thinking (Allan & Shearer, 2012) is an 11-item questionnaire which shows construct validity by correlating with meaning in life, curiosity, and other existential variables. Participants rate how often they engage in various existential thinking behaviours on a 6-point scale ranging from no or every once and awhile to all the time which supports the conceptualization of existential thinking as a meaning-making process. The scale has a testretest reliability of .91 and internal consistencies range from .88-.94.

The World Health Organization Quality of Life Assessment (WHOQOL BREF) (World Health Organization, 1996) developed by the World Health Organization is a 26-item instrument consisting of four domains physical health, psychological health, social relationships and environment health. Each individual item of the WHOQOL BREF is scored from 1 to 5 on a response scale, which is stipulated as a five-point ordinal scale. It is a reliable and valid scale with Cohen's Kappa value ranging from .50- 1.00.

The Brief COPE (Carver, 1997) is a 28-item instrument that measures various ways people have been dealing with stress in their lives. Items are scored on a 4-point Likert scale. All items are directly scored and summed for a total score on each subscale. The Brief COPE includes the following subscales: distraction, active coping, denial, substance use, emotional support, instrumental support, behavioural disengagement, venting, positive reframe, planning, humour, acceptance, religion and self-blame. It is a widely used reliable and valid instrument with Cronbach's alpha value ranging from .65- .70.

Procedure

Phase 1

Institutional Ethics Committee approval was taken from XXX. Through multistage stratified random sampling, 500 participants were recruited in each group. All participants who scored less than 2 in GHQ were included.

Assessment tools were administered after taking informed consent. Along with the information schedule, all the scales were administered to the participants individually. Forms were filled by the participants in the presence of a researcher to clarify any arising doubts or explanations warranted for any item.

Phase 2

Forty participants from each group (business and service) were randomly assigned to one of the two eight weeks treatment program-ACT and CBT. 20 participants from each group received one of the two treatment programs. Total of eight weekly sessions were conducted in each program. Both the programs were conducted in person, strictly adhering to Covid protocols. There were 10 participants in each group therapy session. Both the treatment groups received eight hours of training in 2 months. One session was conducted per week. Pretest and posttest measures were taken in terms of financial stress, perceived stress, existential concern, existential thinking, quality of life and coping strategies.

Therapist

CBT and ACT training was done by an M.Phil. qualified Rehabilitation Council of India registered Clinical Psychologist. Trainer has extensive training with around 7 years of clinical experience in both ACT and CBT sessions. Therapist had a pre-planned curriculum for both the treatment programs across all the eight sessions. ACT and CBT manuals were followed to ensure standardized and structured therapy process.

Treatment

Acceptance and Commitment Therapy

In the first session, participants were introduced to the concept of mindfulness. Formal and informal mindfulness strategies were suggested. In session two, concept of thinking mind was introduced. 5 sense mindfulness exercise, mindful eating and breathing were emphasized upon with demonstrations. In session 3, Mindful thinking was explained. Participants were taught to notice their thoughts and let it settle down without any reactions and judgments. In session 4, participants learnt cognitive fusion and defusion with examples.

Defusion strategies like leaves on a stream exercise was demonstrated and practiced. In session 5, participants learnt about acceptance, that is allowing our thoughts and feelings to be as they are without trying to change them. Session 6 focused on value-based living. Participants were given exercises that made them identify and being more aware of their values, meaning goals that are important to them. In session 7, clients were made to set goals that are based on their values and learnt to have a value-based living. In session 8, all the points that ACT emphasizes on were recapitulated. Participants were taught to focus on developing psychological flexibility. In all the sessions, at least one ACT metaphor had been used like Demons on ship.

Cognitive Behaviour Therapy

In the first session, participants were psycho-educated about the link between our thoughts, feelings and behaviour with examples and demonstrations. In session 2, participants were taught about the mechanism of stress through transactional stress model. In session 3, relaxation training was started. Progressive muscle relaxation, deep breathing and autogenic training were demonstrated. In session 4, participants were taught about behavioural activation techniques. Physical activity and mind engagement techniqueswere suggested including self-reinforcement methods. In session 5, participants were introduced to cognitive restructuring techniques. Common cognitive distortions were explained, participants were encouraged to find out their own faulty behaviours and generate alternate positive thoughts. Session 6 focused on social skills training including encouraging social support seeking, social interaction and assertiveness training. In session 7 problem solving skills and strategies were explained along with time management skills. In session 8, participants were oriented to positive coping strategies such as distraction and humor. Maladaptive coping strategies were explained so that participants could refrain themselves from using them. In all the sessions, therapist tried to use behaviour experiments to make the concepts clear.

Statistical Analysis

The data was statistically analysed. Two-way

Analysis of Variances (ANOVA) was done to see significant difference in variables between the two broad groups in terms of occupational status and gender. Further, t test was done to analyse the differences in between the sub groups. Paired t test was done to evaluate the effectiveness of treatment program. Hierarchical regression was computed to ascertain the extent to which other variables can predict the quality of life in an individual to establish definite criterion variables.

Results

Two-way analysis of variances showed that there was no significant effect of gender on any study variable. Results further indicate that the effect of occupation status on most variables. Significant occupation status effect was seen on financial stress (F[1, 999] = 34.06,p = .001), perceived stress (F[1, 999] = 75.169, p = .003), quality of life (F[1, 999] = 70.075, p = .002), existential concern (F[1, 999] = 35.04, p = .008), existential thinking(F[1, 999] = 9.22, p = .004), approach coping (F[1, 999] = 6.713, p = .011), altering consciousness (F[1, 999] = 42.44, p = .003) and seeking support (F[1, 999] = 342.328, p = .003). Financial stress, perceived stress, existential thinking and seeking support is significantly high in business entrepreneur group whereas existential concerns, quality of life, approach coping and altering consciousness is high in-service employee group.

Results indicate that in business entrepreneurs, financial stress(t[498]= 5.490, p= .003) is significantly high in small scale entrepreneurs as compared to large scale entrepreneurs whereas large scale entrepreneurs have a significantly high quality of life(t[498]= 3.034, p= .012) and existential thinking (t[498]= 8.645, p= .002) as compared to small scale entrepreneurs. In service group, it is found that existential concern (t[498]= 5.407, p= .003) is significantly high in non-managerial employees as compared to managerial employees.

Hierarchical regression table shows that with financial stressor as a predictor variable and occupation as a criterion variable, significant constant variables are covid fear and avoidance. Covid fear and per capita income is significantly negatively correlated with financial stress and

Table 1: Two Way ANOVA showing difference in observed variables in terms of occupational status and gender

Variables	GROUPS	GENDER	MEAN (SD)	Mean Square	F	Sig
Covid Fear	Business	Male	15.00 (6.03)	76.374	2.763	0.100
		Female	13.20 (4.84)	_		
	Service	Male	16.00 (4.51)	_		
		Female	16.08 (5.26)	_		
Financial Stress	Business	Male	60.53 (10.86)	2555.391	34.06	0.001***
		Female	64.20 (14.41)	_		
	Service	Male	52.44 (4.84)	_		
		Female	49.83 (7.04)	_		
Perceived	Business	Male	26.14 (4.14)	1351.200	75.169	0.003***
Stress		Female	24.30 (5.29)	_		
	Service	Male	17.17 (3.78)			
		Female	16.94 (4.35)			
Quality of Life	Business	Male	70.892 (5.05)	3713.564	70.075	0.002***
		Female	69.8 (3.29)	_		
	Service	Male	83.62 (7.70)	_		
		Female	84.13 (8.89)			
Existential Concern	Business	Male	7.03 (4.73)	.013	35.04	0.008***
		Female	7.2 (6.82)	_		
	Service	Male	18.1 (5.73)	_		
		Female	16.08 (5.03)			
Existential	Business	Male	40.78 (7.25)	18.269	9.22	0.004***
Thinking		Female	38.9 (8.25)	_		
	Service	Male	30.51(11.18)	_		
		Female	27.27 (8.67)			
Approach Coping	Business	Male	22.42 (3.54)	127.055	6.713	0.011***
		Female	22.3 (4.00)	_		
	Service	Male	24.89 (5.12)	_		
		Female	24.83 (4.33)			
Avoidance Coping	Business	Male	15.25 (3.37)	.033	0.002	0.963
		Female	14.7 (2.66)	_		
	Service	Male	14.89 (4.27)	_		
		Female	14.97 (4.25)			

Altering	Business	Male	9.17 (2.855)	288.864	42.44	0.003***
Consciousness		Female	7.5 (2.50)			
	Service	Male	11.89 (2.63)	-		
		Female	12.45 (2.54)			
Seeking	Business	Male	12.32 (2.357)	1195.237	342.328	0.002***
Support		Female	12.8 (2.4)	_		
	Service	Male	4.55 (1.63)	_		
		Female	5.21 (1.39)			

Significance was interpreted at 95% and 99% confidence interval, ***<.01, **<.05 $\,$

Table 2. t-test showing Difference in observed variables between the Small scale and Large scale Entrepreneurs and Managerial and Non managerial Employees

Variables	Business	Mean (SD)	t	Service	Mean (SD)	t
Covid fear	Small	14.72 (4.76)	0.197	Non managerial	16.08	0.101
-	Large	14.35 (6.62)		Managerial	15.94	
Financial	Small	63.56(10.25)	5.490**	Non managerial	51.16	0.390
stress	Large	58.24 (5.20)		Managerial	50.47	
Perceived stress	Small	25.11 (5.22)	1.471	Non managerial	16.78	-0.911
-	Large	26.15 (3.75)		Managerial	17.82	
Quality of life	Small	69.22 (5.41)	-3.034	Non managerial	84.53	1.029
	Large	71.85 (3.51)		Managerial	82.12	
Existential concern	Small	7.67 (2.51)	-1.755	Non managerial	11.14	5.407***
	Large	6.55 (5.11)		Managerial	6.47	
Existential	Small	28.33 (8.14)	8.645***	Non managerial	29.12	0.589
thinking -	Large	39.05 (6.50)		Managerial	27.47	
Approach	Small	21.88 (3.80)	-1.544	Non managerial	25.47	1.826
coping	Large	22.85 (3.47)		Managerial	23.12	
Avoidance	Small	14.94 (3.87)	-0.811	Non managerial	14.90	-0.134
coping	Large	15.25 (3.06)		Managerial	15.06	
Altering consciousness	Small	8.06 (3.13)	-0.291	Non managerial	12.18	-0.151
	Large	9.35 (2.46)		Managerial	12.29	
Seeking	Small	12.17 (2.64)	-1.406	Non managerial	4.92	-0.052
support	Large	12.70 (2.11)		Managerial	4.94	
			_			

Significance was interpreted at 95% and 99% confidence interval, ***<.01, **<.05

Constant	Quality of life						
	В	SE	β	t	Sig		
Existential concern	-0.372	0.130	-0.216	-2.876	0.005		
Perceived stress scale	-0.362	0.173	-0.222	-2.097	0.039		
Constant			Financial stress				
	В	SE	β	t	Sig		
Per capita income	-4.320E-06	0.000	-0.379	-2.723	0.008		

0.153

0.206

0.199

0.173

Table 3: Hierarchical Regression to predict the constants for Quality of life and Financial Stress

predicts financial stress in occupational setting. Avoidance is significantly positively correlated with financial stress and is associated with financial stress in occupational setting. Further, perceived stress and existential concerns are significantly negatively correlated with quality of life in occupational setting.

0.380

0.449

Covid fear

Avoidance

Paired sample t test was done to evaluate the effectiveness of CBT and ACT in both the groups. In business group, following intervention, it was found that participants receiving ACT had significantly low covid fear(t[19]= 13.175, p = .003), financial stress(t[19]= 17.381, p = .003) .001), perceived stress(t[19]= 14.597, p= .012), avoidance coping(t[19] = 16.387, p= .009), existential concern (t[19]= 11.012, p= .005) and altering consciousness (t[19]= 24.422, p= .003) whereas significantly high existential thinking (t[19] = 13.715, p = .003), support seeking (t[19] = .003)11.012, p= .003) and approach coping(t[19]= 19.000, p= .001). Participants receiving CBT had significantly low perceived stress (t[19]= 22.481, p= .003), financial stress (t[19]= 14.648, p= .003), existential concern (t[19]= 14.212, p= .007) and high approach coping (t[19]= 24.648, p= .001) and support seeking (t[19]= 14.212, p= .001). In Service group, following intervention, it was found that participants receiving ACT had significantly low covid fear(t[19]= 16.837, p = .003), financial stress(t[19]= 11.000, p= .005), perceived stress(t[19]= 12.333, p= .003), avoidance coping(t[19]= 14.030, p= .003) and existential concern(t[19]= 28.150, p= .002) whereas significantly high existential thinking(t[19] = 14.333, p= .001), quality of life (t[19]= 14.401, p= .003) and approach coping (t[19]= 17.897, p= .003). Participants receiving CBT had significantly low perceived stress (t[19]= .725, p= .010), existential concern (t[19]= .790, p= .009) and high approach coping (t[19]= .512, p= .012) and support seeking (t[19]= .745, p= .008) following intervention. As ACT significantly affects more variables than CBT we can assume it to be more effective than CBT.

2.482

2.183

0.015

0.031

Discussion

In the business group, there were total of 312 males (Mean age 44.23 years) and 188 females (42.38 years) with mean education of 16.21 years. In terms of marital status 425 (85%) participants were married, 40 were single (8%) and 35 were divorced (7%). 280 (56%) participants belong to joint family and 220 (44%) participants belonged to nuclear family. In service group, there were total of 319 males (Mean age 41.73 years and 181 females (40.54) years with mean education of 18.07 years. In terms of marital status 418 (83.6%) participants were married, 49 were single (9.8%) and 33 were divorced (6.6%), 242 (48.4%) participants belong to joint family and 258 (51.6%) participants belonged to nuclear family. Using Chi square test, it was noted that these two groups were matched in terms of socio-demographic variables.

Though there was no significant difference in COVID fear in two groups, mean score was covid fear in business group was found to be 14.21 and in service group to be 16.04. Covid 19 Fear Scale norms suggest that scores above 10 indicates the presence of COVID fear. Thus, pandemic fear was significantly high in both the groups.

Table 4: Paired t test showing significant difference in observed variables between ACT and CBT in both the groups

Variables	Condition	Business				Service			
		CBT		ACT			CBT	A	
		Mean (SD)	t	Mean (SD)	t	Mean (SD)	t	Mean (SD)	t
	Pre	20.60 (3.12)	- 1.584	22.00 (2.95)	13.175***	21.40 (3.84)	2.841	20.60 (3.79)	16.837***
	post	19.00 (2.80)		17.50 (1.98)		19.40 (2.95)		16.30 (4.08)	
Financial P Stress	Pre	54.50 (1.79)		64.40 (3.08)	17.381***	56.80 (1.97)	1.745	53.00 (3.95)	11.000***
	post	47.40 (2.21)	- 14.648**	51.50 (3.48)		52.80 (3.15)		48.80 (2.90)	
Perceived stress	Pre	23.80 (3.07)	22.841**	27.80 (3.95)	-14.597**	18.30 (4.12)	0.725***	19.50 (4.10)	12.333**
	post	14.70 (2.92)		22.30 4.12)		14.30 (2.80)		15.10 (2.92)	
Quality of life	Pre	73.40 (3.13)	- 6.842	75.30 (4.08)	4.422	84.50 (2.55)	0.885	84.50 (3.49)	-14.401**
	post	74.40 (4.12)		76.00 3.98)		86.80 (3.40)		90.00 (4.82)	
Existential concern	Pre	15.10 (4.05)	- 14.212**	14.10 (2.89)	11.012***	12.20 (2.54)	0.790***	12.00 (2.95)	28.150**
	post	8.10 (2.78)		9.90 (8.14)		5.00 (3.12)		8.30 (3.72)	
Existential thinking	Pre	38.80 (3.45)	- 1.584	30.00 (4.08)	13.775***	35.20 (1.89)	2.745	35.40 (2.19)	14.333**
	post	39.00 (2.95)		38.50 3.92)		36.00 (2.75)		30.70 (4.02)	
Approach	Pre	21.60 (2.89)	24.648***	21.60 (6.54)	-19.000**	21.80 (3.82)	0.512**	21.80 (3.50)	17.897**
coping	post	31.30 (4.21)	-24.040	27.20 (3.08)	-19.000	29.70 (3.15)		27.50 (2.90)	
Avoidance coping	Pre	14.30 (2.08)	2.841	16.40 (2.18)	16.837***	19.20 (4.08)	1.885	20.40 (3.15)	14.030***
	post	12.50 3.12)		11.00 (1.98)		19.10 (3.50)		16.80 (4.09)	
Altering cons-	Pre	8.30 (2.94)	-6.473	8.50 (2.09)	24.422***	11.10 (2.98)	1.984	13.80 (5.12)	2.045
ciousness	post	7.90 (1.74)		5.30 (2.34)	24.422	4.10 (4.01)		12.50 (4.80)	
Seeking support	Pre	12.50 (3.18)	- 14.212***	13.00 (2.55)	11.012**	3.80 (3.60)	0.745**	8.70 (2.90)	8.150
-	post	21.50 (3.14)		18.30 (3.08)		12.80 (2.90)		9.00 (3.18)	

Significance was interpreted at 95% and 99% confidence interval, ***<.01, **<.05

Table 1 indicates that financial stress, perceived stress, existential thinking and seeking support is high in business group. Due to COVID 19 imposed restrictions, most business enterprises were working with reduced work capacity. Restriction of mobility disrupting the demand supply chain further lowered productivity (Acharya & Steffen, 2020). These restrictions made it difficult for the business owners to maintain the huge expenses in terms of establishment infrastructure and employee salaries (Fairlie,2020). This may have led to increased financial and perceived stress amongst business owners as compared to service people.

Our results show higher existential thinking scores in business owners. Business strives on creative and novel ideas along with high determination for growth which can be driven through high existential thinking. Business enterprises require strong networking and fund resources for growth. This may lead to higher support seeking in business owners. The relatively higher ability for existential thinking and better support network, however, did not protect the business community from stress – both general and financial.

Table 2 indicates the differences amongst small scale and large-scale entrepreneurs along with non-managerial and managerial employees. Small scale entrepreneurs have high financial stress whereas large scale entrepreneurs' have higher QOL and existential thinking. Though pandemic has affected the entire business sector at large, small scale enterprises may face higher financial stress due to their dependency on routine business transactions (Williams& Schaefer, 2013). Further, in comparison to large scale enterprises, scall scale industries do not possess sufficient resources, especially financial and managerial to survive long term work and productivity disruptions (Prasad, Su, Altay& Tata, 2015). Financial and economic stress leads to increased mental burden. During financial crises, our efforts are directed towards managing the crises, leading to decreased quality of life and wellbeing (Watson, Maître, Whelan & Russell, 2017). Non-managerial employees have higher existential concerns as compared to managerial employees which is explained by their greater

risk of losing jobs when companies turn to downsizing, a common occurrence during any economic downturn.

Table 3 indicates important predictors for financial stress and quality of life in industrial sector. Constant predictor for quality of life is existential concern and perceived stress whereas for financial stress is per capita income, covid fear and avoidance coping. The global COVID-19 pandemic has created a crisis of suffering which is a deep existential issue that fundamentally changes people's quality of life. Negative emotions can lead to deep despair, causing people to question their place in life. This is known as an existential crisis. The Existential Positive Psychology Model of Suffering (EPPMS) reveals three core propositions: (a) suffering reveals existential concerns, (b) existential anxiety impairs one's ability to find meaning in life, and (c) cultivating meaning is the primary way to address suffering and allay existential anxiety, eventually leading to flourishing and potentially growth (Van Tongeren& Showalter Van Tongeren, 2021). An increased fear of Covid, a low household per capita income and avoidance coping styles can all reduce the ability and resource to venture out and seek new avenues of income, all contributing to increased financial stress. The association between perceived stress and quality of life indicates that the stress resulting from the challenges of the pandemic cannot be termed as 'eustress' - the stress that motivates individuals to perform better and enjoy life. It is adversely affecting peoples' quality of life and needs to be allayed at any cost.

In table 4 Interventional study suggests that in both the groups ACT was effective in alleviating distress, improving quality of life while encouraging positive coping strategies. CBT was found to be effective in reducing stress and increasing positive coping strategies. Thus, ACT was found to be more effective for more variables as compared to CBT in an industrial work set up. Cognitive Behavioural Therapy (CBT) is the traditionally established primary treatment for work-related stress and all forms of anxiety. It can provide one with a new perspective on situations, enabling to regain control, reduce the

intense physiological and emotional symptoms and adopt effective strategies that will help one to deal with stressful situations with more confidence and ease (Brunero, Cowan & Fairbrother, 2008). However, ACT is a newer approach to treatment based on the concepts of mindfulness and acceptance. The contextbased approach of ACT is consistent with transaction model of stress where values have been found to impact appraisals of meaning of stressful situations including work stress (Britt, Stetz&Bliese, 2004). Focussing on acceptance of the situation and giving attention to personal values also dampen the physiological reaction to stress (Creswell, Welch, Taylor, Sherman, Gruenewald & Mann, 2005). Further, personal values have also been linked to various workrelated outcomes like satisfaction, commitment and motivation (Latham& Pinder, 2005). which leads to engagement in healthy behaviour whereby improving the overall quality of life (Orford, Dalton, Hartney, Ferrins-Brown, Kerr, & Maslin, 2002). Thus, components of ACT have been found to be more effective in alleviating stressors associated with industrial sector.

The study does have certain limitations. Only urban population were included in the current study. Self-reporting inventories have been used which may have led to social desirability and faking. Phase 1 data was collected online due to ensuing lockdown, leading to lack of personal touch between the researcher and participants.

The results indicate that individuals working in industrial sector have been victims of destabilizing effects of a pandemic leading to increased financial stress and decreased psychological wellbeing. The findings of the study further give insight into effective coping strategies that can combat stress in industrial sector. The crises intervention for pandemic in workplace could focus on strengthening coping resources and enhancing quality of life which will contribute to decreased financial and perceived stress.

The development of an effective therapeutic model to alleviate stress and improve quality of life may prove helpful. However, this needs replication with larger populations.

Conclusion

The present study attempts to contribute to the establishment of an effective therapeutic intervention module to combat work stress in industrial set up during pandemic and associated financial crises. The essential conclusion of this research is that a strong correlation exists between financial stress and quality of life impacting both business and service sector. Psychological distress is inevitable in a face of pandemic; however, effective and insightful intervention can combat work related stress ensuring healthier psychological wellbeing.

References

- Acharya, V. V., & Steffen, S. (2020). The risk of being a fallen angel and the corporate dash for cash in the midst of COVID. *The Review of Corporate Finance Studies*, *9*(3), 430-471.
- Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., &Pakpour, A. H. (2020). The fear of COVID-19 scale: development and initial validation. *International journal of mental health* and addiction, 1-9.
- Allan, B. A., & Shearer, C. B. (2012). The scale for existential thinking. *International Journal of Transpersonal Studies*, 31(1), 21-37.
- Asgary, A., Ozdemir, A. I., &Özyürek, H. (2020). Small and medium enterprises and global risks: evidence from manufacturing SMEs in Turkey. *International Journal of Disaster Risk Science*, 11(1), 59-73.
- Bond, F. W., & Bunce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of* occupational health psychology, 5(1), 156.
- Britt, T. W., Stetz, M. C., &Bliese, P. D. (2004). Work-relevant values strengthen the stressorstrain relation in elite army units. *Military Psychology*, 16(1), 1-17
- Brunero, S., Cowan, D., & Fairbrother, G. (2008). Reducing emotional distress in nurses using cognitive behavioral therapy: A preliminary program evaluation. *Japan Journal of Nursing Science*, *5*(2), 109-115.
- Carver, C. S. (1997). You want to measure coping but your protocol'too long: Consider the brief cope. *International journal of behavioral medicine*, *4*(1), 92-100.

Cohen, S., Kamarck, T., &Mermelstein, R. (1983). A global measure of perceived stress. *Journal of health and social behavior*, 385-396.

- Creswell, J. D., Welch, W. T., Taylor, S. E., Sherman, D. K., Gruenewald, T. L., & Mann, T. (2005). Affirmation of personal values buffers neuroendocrine and psychological stress responses. *Psychological science*, 16(11), 846-851.
- Dixon, J., & Frolova, Y. (2011). Existential poverty: welfare dependency, learned helplessness and psychological capital. *Poverty & Public Policy*, 3(2), 1-20.
- Fairlie, R. W. (2020). The impact of Covid-19 on small business owners: Evidence of early-stage losses from the April 2020 current population survey (No. w27309). National Bureau of Economic Research.
- Gautam, M., Tripathi, A., Deshmukh, D., & Gaur, M. (2020). Cognitive Behavioral Therapy for Depression. *Indian Journal of Psychiatry*, 62(8), 223.https://doi.org/10.4103/psychiatry. indianjpsychiatry_772_19
- Giorgi, G., Lecca, L. I., Alessio, F., Finstad, G. L., Bondanini, G., Lulli, L. G., ... &Mucci, N. (2020). COVID-19-related mental health effects in the workplace: a narrative review. *International journal of environmental research and public health*, 17(21), 7857.
- Goldberg, D. P., & Blackwell, B. (1970). Psychiatric illness in general practice: a detailed study using a new method of case identification. *Br med J*, 2(5707), 439-443.
- Gross, A. E., & McMullen, P. A. (1983). Models of the help-seeking process. *New directions in helping*, 2, 45-70.
- Hamburg, I. (2021). Impact of COVID-19 on SMEs and the Role of Digitalization. *Advances in Research*, 10–17. https://doi.org/10.9734/air/2021/v22i330300
- Hammen, C. (1992). Life events and depression: The plot thickens. *American Journal of Community Psychology*, 20(2), 179-193.
- Heo, W., Cho, S. H., & Lee, P. (2020). APR Financial Stress Scale: Development and validation of a multidimensional measurement. *Journal of Financial Therapy, 11*(1), 2.
- Hofmann, S. G., Asnaani, A., Vonk, I. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of metaanalyses. Cognitive therapy and research, 36(5),

427-440.

- Holubova, M., Prasko, J., Ociskova, M., Kantor, K., Vanek, J., Slepecky, M., &Vrbova, K. (2019). Quality of life, self-stigma, and coping strategies in patients with neurotic spectrum disorders: a cross-sectional study. *Psychology research and* behavior management, 12, 81.
- Huang, R., Ghose, B., & Tang, S. (2020). Effect of financial stress on self-rereported health and quality of life among older adults in five developing countries: a cross sectional analysis of WHO-SAGE survey. BMC geriatrics, 20(1), 1-12.
- Keller, J., & McDade, K. (2000). Attitudes of lowincome parents toward seeking help with parenting: Implications for practice. *Child welfare*, 285-312.
- Kim, J., & Garman, E. T. (2004). Financial stress, pay satisfaction and workplace performance. Compensation & Benefits Review, 36(1), 69-76.
- Kulikowski, K., &Sedlak, P. (2020). Can you buy work engagement? The relationship between pay, fringe benefits, financial bonuses and work engagement. Current Psychology, 39(1), 343-353
- Latham, G. P., & Pinder, C. C. (2005). Work motivation theory and research at the dawn of the twentyfirst century. *Annual review of psychology*, 56(1), 485-516.
- McGuinness, S., & Wooden, M. (2009). Overskilling, job insecurity, and career mobility. *Industrial relations: a journal of economy and society, 48*(2), 265-286.
- Miller-Adams, M., Bartik, T. J., &Hershbein, B. J. (2021). A Moment of Opportunity: Strategies for Inclusive Economic Growth. *Institute for Employment Research*, 27(2), 1-2.
- Orford, J., Dalton, S., Hartney, E., Ferrins-Brown, M., Kerr, C., & Maslin, J. (2002). How is excessive drinking maintained? Untreated heavy drinkers' experiences of the personal benefits and drawbacks of their drinking. *Addiction Research & Theory*, 10(4), 347-372.
- Ownsworth, T., & Nash, K. (2015). Existential well-being and meaning making in the context of primary brain tumor: Conceptualization and implications for intervention. *Frontiers in oncology*, *5*, 96.
- Penley, J.A., Tomaka, J., & Wiebe, J. S. (2002). The association of coping to physical and

- psychological health outcomes: A meta-analytic review. *Journal of behavioral medicine*, 25(6), 551-603.
- Prasad, S., Su, H. C., Altay, N., & Tata, J. (2015). Building disaster-resilient micro enterprises in the developing world. *Disasters*, 39(3), 447-466.
- Sareen, J., Afifi, T. O., McMillan, K. A., & Asmundson, G. J. (2011). Relationship between household income and mental disorders: findings from a population-based longitudinal study. *Archives of general psychiatry*, 68(4), 419-427.
- Shafi, M., Lei, Z., Song, X., &Sarker, M. N. I. (2020). The effects of transformational leadership on employee creativity: Moderating role of intrinsic motivation. Asia Pacific Management Review, 25(3), 166-176.
- van Bruggen, V., Ten Klooster, P., Westerhof, G., Vos, J., de Kleine, E., Bohlmeijer, E., &Glas, G. (2017). The Existential Concerns Questionnaire (ECQ)—development and initial validation of a new existential anxiety scale in a nonclinical and clinical sample. *Journal of clinical psychology*, 73(12), 1692-1703.

- Van Tongeren, D. R., & Showalter Van Tongeren, S. A. (2021). Finding Meaning Amidst COVID-19: An Existential Positive Psychology Model of Suffering. Frontiers in psychology, 12, 641747. https://doi.org/10.3389/fpsyg.2021.641747
- Watson, D., Maître, B., Whelan, C. T., & Russell, H. (2017). Poverty, economic stress and quality of life: lessons from the Irish case. *International Review of Economics*, 64(2), 125-143.
- Williams, S., & Schaefer, A. (2013). Small and mediumsized enterprises and sustainability: Managers' values and engagement with environmental and climate change issues. *Business Strategy and* the Environment, 22(3), 173-186.
- Williams, S., & Schaefer, A. (2013). Small and mediumsized enterprises and sustainability: Managers' values and engagement with environmental and climate change issues. *Business Strategy and* the Environment, 22(3), 173-186.
- World Health Organization. (1996). WHOQOL-BREF: introduction, administration, scoring and generic version of the assessment: field trial version, December 1996 (No. WHOQOL-BREF). World Health Organization.

Prathama Guha, Ph.D., MD, DNB in Psychiatry, Professor, Department of Psychiatry, Calcutta National Medical College, Kolkata.

Megha Rathi, M.Phil in Clinical Psychology, Clinical Psychologist and Supervisor, Caring Minds, PhD scholar and Guest faculty, Department of Applied Psychology, University of Calcutta, Kolkata. Mail id: megha_aims@yahoo.in

Mrnali Singh, M.A in Applied Psychology, Department of Applied Psychology, University of Calcutta, Kolkata.

Yoshita Agarwal, M.A in Psychology, Department of Psychology, University of Calcutta, Kolkata