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Impact of yoga on the level of distress of parents having children with intellectual disability undergoing home based education during COVID-19 crises: A comparative study

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Abstract---COVID-19 is now spreading across the country as well as worldwide, and poses some public those have more responsibilities of his/ her life and they are may be suffering more mental health problems which require close attention. This study aims to assess the effect of yoga exercise on distress level of parents having children with Intellectual disability and doing or not doing yoga exercise during implementing Home Based Education. Researchers compiled a 35-item scale for five dimensions. 40 parents having children with Intellectual disability were selected for this study and survey was conducted through an online questionnaire. ANOVA test was applied to identify the impact of yoga on distress. Distress was significant based on doing yoga exercise and perceived impacts of the epidemic outbreak.

Keywords---yoga, COVID-19, parents children, intellectual disability, distress, home based education.

Introduction

The COVID-19 has achieved pandemic status in more than 200 countries in the world. The World Health Organization and Indian council of medical research and other Association as well as organizations working for the health issues; have issued guidelines time to time for managing the problems from both Health and Psychological points of view. India has reported first case of Covid-19 on 30th January 2020. No significant rise in cases was seen in the rest of February. During first week of March cases were raised slowly and then suddenly rate of

rise was increased in the Indian metropolitan cities. During this Pandemic situation, it was observed and reported that some parents having special children suffered due to distress about the Education, Medication and Rehabilitation of their children.

Parents were worried about growth and development of their children; since Special Schools was closed and Hospitals stopped providing therapies like Speech, Physio and Occupational and others services like disabilities assessment only essential services are provided. Whole day children are spending time in his/her home, parents do not know how to handle children full day in home activities. So parents are suffering psychological imbalances. Parents having disabled children may have suffered more distress compared to other parents in this specific current situation in India.

Day by day mental well-being is affected and people are afraid about this situations. Mostly Parents with children with Intellectual disabled are going through more distressful condition. Adult severe and profound intellectual disabled children are more depended upon parents for daily living activity. They can't perform independently that's why parents are suffering more distress condition in this Covid- 19 crises.

Along with this distress with physical stress, mental peace, well-being and positivity, too, are important factors to fight against the pandemic situation. This is the situation where Yoga comes in our life. "Yoga has reported many benefits like yoga boost our immunity, yoga sustains our psychological and emotional levels, exercising simple yoga asana and pranayama stimulate "production of happy hormones" in our body.

Covid- 19

"A coronavirus is a kind of common virus that causes an infection in your nose, sinuses, or upper throat. Most coronaviruses aren't dangerous".

Distress

"Distress can follow both acute and chronic stress, provided that the body's biological functions are sufficiently altered and its coping mechanisms overwhelmed" (Moberg 2000). "Characterize distress as an aversive, negative state in which coping and adaptation processes fail to return an organism to physiological and/or psychological homeostasis (Carstens and Moberg 2000; Moberg 1987; NRC 1992).

Objectives of Study

1. To study Yoga Abhyas of parents.
2. To assess level of distress of parents
3. To improve level of distress of parents

Hypothesis

1. Distress level of the parents of Intellectual disabled exercising Yoga will be low.
2. Distress level of the parents of Intellectual disabled not exercising Yoga will be high.
3. Fathers distress level is high than mothers.
4. No significant differences in distress level found for male and female parents.

Research Methodology

Sampling method

In this study purposive sampling method we have to use.

Sample size

Total 40 parents have selected for this study. (There 20 parents who have doing Yoga and 20 parents who have not doing Yoga). All parents have age range 35 to 55.

Tool for Data Collection

A Checklist was prepared by the Researcher for this study. The Checklist consisted of 35 items testing general meaning of Distress in light of five domain Emotional, physical, social, cognitive, and behaviour symptoms. The Checklist was administered individually with adequate an instruction to parents who has children with ID. The checklist was constructed in five rating scale 5 to 1 marks, strongly yes 5, frequently yes 4, Neutral 3, frequently no 2 and strongly no 1 marks, for each response. After checking one complete Checklist the respondents were scored for the total number of the responses given by them. Therefore the range of scores of this Checklist is from '0'- '175'. Interpretation of total for the level of Distress.

Table No. 1 Checklist Scoring

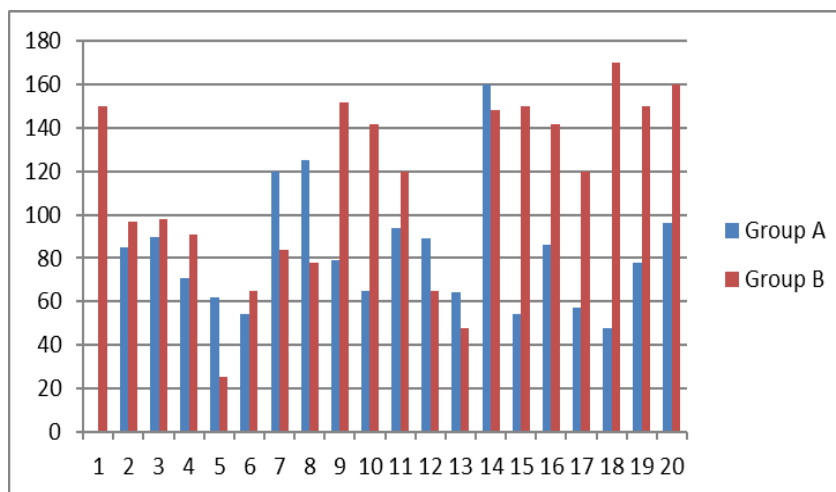
Level of Distress					
	High	Medium	Normal	Low	Very Low
Score	175-141	140-106	105-71	70-36	35- Below

Procedures of Date Collection

We have contact with special educator as well as psychologist in Maharashtra. They have given contact of parents those who exercising yoga and who not exercising yoga. We have selected 40 parents which is belong 20 parents who have exercising Yoga and 20 parents who have not exercising Yoga. We have prepared a checklist for assess to distress level of parents then administered on this parents of CWID. Following date given below: Group-A means those parents exercising Yoga, and Group-B which parent's do not exercising Yoga.

Table No. 2 Parents of exercising and without exercising of Yoga

No.	1	2	3	4	5	6	7	8	9	10
Group- A	80	85	90	71	62	54	120	125	79	65
Group- B	150	97	98	91	25	65	84	78	152	142
No.	11	12	13	14	15	16	17	18	19	20
Group- A	94	89	64	160	54	86	57	48	78	96
Group- B	120	65	48	148	150	142	120	170	150	160



Parents socio-economic status has shown below table Group A means high socio-economic status, group B means medium socio-economic status and Group C means low socio-economic status data as given:

Table No. 3 Socio-economic Status of Parents

No.	1	2	3	4	5	6	7	8	9	10
Group- A	80	54	120	65	94	54	86	57	48	25
Group- B	85	90	71	62	125	79	89	64	78	96
Group- C	60	150	98	91	152	142	148	150	170	150

No.	11	12	13	14	15	16	17	18	19	20
Group- A	65	84								
Group- B	97	78	120	65	48	142	120	160		
Group- C										

Data Analysis and Discussion

The Data collected was statistically analysed on percentile basis and analyses were done on the basis of Level of Distress and scores achieved in test items by the parents. Analysis on basis of Level of Distress: The scores were divided into high, medium and low level of Distress as depicted in below:

Table No. 4

Summary of Data				
	<i>Treatments</i>			
	Group A	Group B	Total	
N	20	20	40	
ΣX	1657	2255	3912	
Mean	82.85	112.75	97.8	
ΣX^2	151635	287949	439584	
Std.Dev.	27.4845	42.1137	38.2269	
Result Details				
<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	
Between-treatments	8940.1	1	8940.1	$F = 7.07017$
Within-treatments	48050.3	38	1264.4816	
Total	56990.4	39		

The f -ratio value is 7.07017. The p -value is .011408. The result is significant at $p < .05$.

Table No. 5

Summary of Data				
	Treatments			
	Group A	Group B	Group C	Total
N	12	18	10	40
$\sum X$	832	1669	1411	3912
Mean	69.3333	92.7222	141.1	97.8
$\sum X^2$	64548	169979	205057	439584
Std.Dev.	24.9776	29.927	25.7443	38.2269
Result Details				
Source	SS	df	MS	
Between-treatments	28937.2222	2	14468.6111	$F = 19.08299$
Within-treatments	28053.1778	37	758.194	
Total	56990.4	39		

The f -ratio value is 19.08299. The p -value is $< .00001$. The result is significant at $p < .05$.

Here compare with male and female parents Distress level result shown below:

Difference	Scores		Calculations
Mean:			0.5
$\mu =$			0
$S^2 = SS/df =$	27457/(20-1)	=	1445.11
$S^2_M = S^2/N = 1445.11/20$		=	72.26
$S_M = \sqrt{S^2_M} =$	$\sqrt{72.26}$	=	8.5
T-value			Calculation

$$t = (M - \mu) / S_M = (0.5 - 0) / 8.5 = 0.06$$

The value of t is 0.058821. The value of p is .95371. The result is *not* significant at $p < .05$.

Result

In this study to investigate Distress level of parents and impact of yoga in this COVID-19. The results revealed that Compared with exercising and without exercising yoga this result are significant those who exercising yoga they have suffering low level of distress compare with those who do not exercising yoga. Socio economical status also significant who has high socio economic status these parents suffering low distress level , those who has low economic status they have suffering high distress level and who has medium socio economic status they have normal stress. We assumed Female has suffering more distress than Male this assumption has insignificant here gender did not faced more or less distress in this Covid- 19 crises.

Conclusion

We found that the parents may have a common COVID-19 related psychological distress. To our knowledge, The COVID-19 pandemic is undoubtedly a stressful event for the parents of Children with Intellectual disability. Which can cause mental health problems among the parents, and existing studies have shown that COVID-19 crisis can lead to distress among the parents. Although the domestic epidemic situation was much better than before, we still found COVID-19 related distress suspicion in uninfected healthy Parents, suggesting that the mental health problems caused by COVID-19 may last for a long time. Therefore, long-term psychological interventions should be developed and implemented. Subgroup analysis showed that children with severe intellectual disability, women, and parents have psychosomatic disorder, parents with lower educational background, those who no exercising yoga, low socio-economic status, those with lower income, and their dependent children on them may face more serious COVID-19 related mental health problems, suggesting that mental health problems of these parents should arouse more consideration and attention during the prevalence of COVID-19 and other respiratory infectious diseases. Targeted, specific and timely psychological counselling and psychological intervention should be taken in these sub groups.

This study did not adopt strict random sampling method, but adopted the method of purposive sampling. We carried out necessary publicity through newspapers, Medias and posters to recruit as many participants as we could. In this study, the participants were parents of CWSN from 2 special schools, while mostly they were from Hindu religious. There may be some regional bias in the research results. Due to the relatively small sample size in this study, we did not carry out a multi-factor analysis on the influencing factors of COVID-19 related psychological distress. At present, we are recruiting more uninfected healthy parents to participate in other surveys of COVID-19 related mental health, so that we can reduce the bias, make up for the limits, and further verify the reliability and effectiveness of the scale especially in different regions and different populations. In this way, we can obtain a more comprehensive understanding of the negative impacts of mental health to the parents during and after the COVID-19 pandemic. These on-going works shall provide more sufficient evidence for the psychological interventions in the parents. If the scale is of help to a researcher, she/ he have our permission to translate it into other languages, to revise it as necessary.

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