

2023

EDITION

e ISBN 978-629-97531-6-2



Psychological

Implications in
HEALTH & WELLBEING:
LOOKING BEYOND THE BOUNDARIES



Edited by

Aqeel Khan, Fatin Aliah Phang, Mahani Mokhtar, Tan Joo-Siang, Mastura Mahfar,
Jamaludin Ramli, Zainudin Hassan, Rozita Jayus, Hassan M. M. Abuhassna
& Siti Nisrin Mohd Anis

Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia

&

Waheeda Khan, Amra Ahsan, Vikas Sharma, Farhat Jahan & Aastha Dhingra
SGT University, India



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Psychosocial Implications in Health & Wellbeing: Looking Beyond the Boundaries

Aqeel Khan, Fatin Aliah Phang, Mahani Mokhtar, Tan Joo-Siang, Mastura Mahfar,
Jamaludin Ramli, Zainudin Hassan, Rozita Jayus, Hassan M. M. Abuhassna & Siti Nisrin
Mohd Anis

Faculty of Social Sciences and Humanities
Universiti Teknologi Malaysia

&

Waheeda Khan, Amra Ahsan, Vikas Sharma, Farhat Jahan & Aastha Dhingra
SGT University, India

First Edition 2023

© Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia 2023
Hak Cipta Universiti Teknologi Malaysia

Copyright © 2023 Universiti Teknologi Malaysia

Copyright on any open access article in a journal published by Faculty of Social Sciences & Humanities, UTM, is retained by the author(s).

Authors grant Faculty of Social Sciences & Humanities, UTM a license to publish the article and identify itself as the original publisher.

Authors also grant any third party the right to use the article freely as long as its integrity is maintained and its original authors, citation details and publisher are identified.

Faculty of Social Sciences & Humanities,
Universiti Teknologi Malaysia (UTM)
Skudai 81310, Johor, MALAYSIA

Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

Psychosocial Implications in Health & Wellbeing: Looking Beyond the Boundaries

eISBN 978-629-97531-6-2

Editors

Aqeel Khan, Fatin Aliah Phang, Mahani Mokhtar, Tan Joo-Siang, Mastura Mahfar,
Jamaludin Ramli, Zainudin Hassan, Rozita Jayus, Hassan M. M. Abuhassna & Siti Nisrin
Mohd Anis

Faculty of Social Sciences and Humanities
Universiti Teknologi Malaysia

&

Waheeda Khan, Amra Ahsan, Vikas Sharma, Farhat Jahan & Aastha Dhingra
SGT University, India

Published by: Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia,

81310 UTM Johor Bahru,

MALAYSIA

Electronic publication - <https://humanities.utm.my/publication/books/>

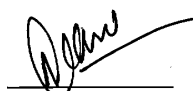
Preface

In this book editors collected a set of best articles in the field of psychology and counseling, which were presented in the following Colloquium (1). FSSH-FBS International Colloquium: Psychosocial Issues in Covid-19 Era on 8th December, 2021; (2). FSSH-AMU on 18th May 2022; (3). FBS, SGT - FSSH, UTM organized International Conference on Psychosocial Implications in Health & Wellbeing: Looking Beyond the Boundaries (PSYHW22) on 2-4 November, 2022 under Azadi Ka Amrit Mahotsav sponsored by Indian Council of Social Science Research (ICSSR), Delhi, Govt of India.

Editors hopes this book will be useful to readers and it will generate interest among researchers in the area of Education, Health Psychology and Counseling, in which the emphasis is on using new approaches in scientific manner to solve practical problems of human life in relation to health issues and covid-19 issues. Current book focus on the four major themes such as *Psychological Issues of Health and Covid-19 Era*, *Contemporary Issues & Challenges in Counselling & Psychology*, *Life Challenges & Coping and Leadership & Organizational Behavior*. The editor of this book wishes to express gratitude to all authors of their valuable contributions and thanks to editorial committee.

Acknowledgement: Thanks to all SGT University, India and AMU, India. Special thanks to potential editors and reviewers team namely Aqeel Khan, Waheeda Khan, Mahani Mokhtar, Rozita Jayus. **Editorial Assistances:** Special thanks to Mrs Rozita Jayus (UTM) & Dr. Amra Ahsan (SGT) for giving special effort for helping in editing process.

Editor would like to thanks to Faculty of Social Sciences & Humanities, UTM for providing publication facilities.



Associate Prof. Dr. Aqeel Khan
Faculty of Social Sciences & Humanities,
Universiti Teknologi Malaysia
2023
Email: aqeel@utm.my

CONTENTS

<i>Preface</i>		<i>Iv</i> <i>V</i>
Chapter 1	Psychological Well Being Effects for Working Women During Pandemic Covid-19 : Way Forward for Career Counselling Approach <i>Rozita Jayus & Aqeel Khan</i>	1
Chapter 2	Military Children on the Move: A Review on Psychological Effects of Multiple School Transitions <i>Saniya Bedi & Waheeda Khan</i>	9
Chapter 3	Loneliness, Eating Habits and Mental Health in College Students: A Correlational Study <i>Abhishek Banga & G S Kaloiya</i>	16
Chapter 4	Courage and Health Behaviour in Chronic Diseases- an Integrative Literature Review <i>Supriya & Rajbir Singh</i>	26
Chapter 5	Role of Parenting Stimulation in Early Childhood to Mitigate Symptoms of Neurodevelopmental Disorders <i>Waheeda Khan & Satinder Kaur Walia</i>	37
Chapter 6	Belief in Karma a Positive Determinant of Psychological Well-Being in Young Adults. <i>Malima Garg, Anjali & Sundeep K</i>	45
Chapter 7	Disaster Volunteering During Covid-19 Pandemic: A Systematic Review <i>Mohd Saiful Zaidi Mazlan & Tan Joo Siang</i>	57
Chapter 8	The Effectiveness of Eye to I© Intervention Online and in-Person During the Covid-19 Pandemic and Beyond: A Follow-Up Study <i>Chadha, A. K, Kaur, M, Mittal, D., Khattar S, Gupta, P & Schuchert, S. A.</i>	64

Chapter 9	The Journey of Teaching-Learning During Covid-19 <i>Nasrin</i>	72
Chapter 10	A Comparative Study of Stress, Self-Efficacy and Mental Health Between Medical and Nursing Interns <i>Apoorva Choudhary & Alvis Keisham</i>	80
Chapter 11	Mediating Effect of Mindfulness on Sense of Coherence and Perceived Stress <i>Yogeshwari Udawat & Ayushi Tyagi</i>	88
Chapter 12	Transgender, Sexuality, Health and Wellbeing: Media Exposure and Viewers Attitude Towards Homosexuality. <i>Sonal & Amra Ahsan</i>	98
Chapter 13	Psychosocial Crisis in Covid-19 and Post-Era: A New Normal <i>Syed Faraz Ali & Aqeel Khan</i>	106
Chapter 14	Evidence-Based Psychotherapeutic Interventions for The Elderly: A Review of Literature <i>Aastha Dhingra & Waheeda Khan</i>	113
Chapter 15	A Systematic Review on Incorporation of Artificial Intelligence in Mental Healthcare <i>Nishtha Jain & Angela Mathias</i>	123
Chapter 16	Transformative Pedagogy in Higher Education: Empowering Learners for the Future <i>Amna Saleem, Syed Faraz Ali & Aqeel Khan</i>	130
Chapter 17	Facilitating Student Transition to University in the Pandemic- Concerns and Solutions <i>Noora Abdul Kader</i>	142
Chapter 18	Resilience and Post Traumatic Growth among Covid-19 Exposed Adults Residing In Kashmir, India <i>Suhail Rashid Hajam, Waheeda Khan & Aehsan Ahmad Dar</i>	148

CHAPTER 1

Psychological Well Being Effects for Working Women During Pandemic Covid-19 : Way Forward for Career Counselling Approach

Rozita Jayus^{1,2} & Aqeel Khan¹

¹ *Faculty of Social Sciences & Humanities, Universiti Teknologi Malaysia, Johor, Malaysia*

² *Faculty of Business, Economics and Social Development, Universiti Malaysia Terengganu, Terengganu, Malaysia*

Abstract: Working women is one of the effected group during Covid -19 Pandemic starting in late 2021 until now. Within the timeline, there are a lot of negative ramifications affected to the working women reported in previous research, such as, negative psychosocial well-being that led working women having mental health issues. This situations alarming the organizations, employer and career counsellor to take a step ahead to help this groups of employee. This article introduces the concept of the Person Environment Fit (PEF) theories as an approach in the career counselling sessions in 7 stage as intervention. This intervention would create career conducive organizations as an important strategy to contribute the best quality of live among working women.

Key words: *Working women, Covid-19, Career counseling*

1.1. INTRODUCTION

The COVID-19 pandemic in Malaysia is part of the 2019 coronavirus disease (COVID-19) pandemic that was hitting the world due to Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). In Malaysia, a total lockdown was obligatory on 18 March 2020 after the declaration of covid 19 as serous outbreak worldwide by World Health Organization (WHO). To date, Malaysia is in third place in the statistic of cases of COVID-19 infection and also the number of deaths due to the disease in Southeast Asia after Indonesia and Vietnam. As of 30 May 2022, there are 4,503,734 confirmed cases in Malaysia with 4,443,676 cases fully recovered and 35,665 deaths and 24,393 cases still active. Worldwide interventions for handling the covid 19 outbreak were in the same page, which, all countries applied movement control order (MCO) for citizen. While workers in the essential sectors are exempted from the MCO such as healthcare providers, industrial related with health, defence and security.

On the other hand, during lockdown, the impact of the outbreak on the labour market as well as the volume of education, childcare, home keeping and home productions had been heavily loaded to the person in charge such as spouse or parents. This responsibility most likely to have sequences to the gender distribution of home production needs. As kin-keepers of a family, women are often overwhelmed by juggling their household and children, working from home, caregiving duties, etc (Le et al., 2020; Jung, & O'Brien, 2019; Alavi & Rahim M., 2010; Sevilla & Smith, 2020; Cutter 2017). During the early stages of a woman's career, motherhood, marriage status, and other intersectional factors play a role. A career interruption may occur during the mid-level work stage due to marital status, childbirth, and childcare. Women often prefer flexible working conditions or a career break at the late work stage in order to care

for a partner or grandchild. Due to these factors, women's careers are often interrupted, which reduces their opportunities; these limitations may be related to cultural beliefs and acceptance of women's roles in society (Al-Asfour et al., 2017; Ginige et al., 2007).

After more than 2 years of wrestling with covid 19 issues, almost all mankind affected with the issues on emotional wellbeing (Lahav, 2020; Le et al., 2020; Ahorsu et al., 2020), especially for working women (Tian et al., 2020; Burhamah et al., 2020; Lahav, 2020; Qiu et al., 2020). The concept of emotional wellbeing is defined as a state of happiness, high life satisfaction, good mental health and the ability to manage stress. Perrin et al. (2015) research a series of scales to caregivers, shows that women had negative mental health issue, lower social support and health related quality of life. Women workload had jeopardised women's ability to balance their life and time among spheres (Bradshaw 2015; Bradshaw and Fordham 2015; Mondal 2014; Stemple et al. 2016).

Working women were found to have encountered misery partially, though at a lower level contrasted with the people who didn't. Five huge stressors were distinguished: financial issues, marital issues, emotion, living condition and working from home (Balakrishnan, 2021). Working women and career are generally associated with better health and well-being (Schieman & Reid, 2009; Schulz et al., 2000). Well-being in the workplace is defined as satisfaction with work and non-work domains, as well as general health (Danna & Griffin, 1999). Recent researchers have recognized work-family conflict as one of the precursors to poor health and well-being (Frone, 2000; Chandola, et.al., 2004) and workplace environment (Olafsdottir L. 2004) among employees. Women is eligible to received career counselling services in wide range of fields (Sensoy-Briddick, 2009). Therefore, health and psychological well-being of women employees is an important topic among human recourse management and career counsellor. Working women with difference responsibility such as working caregivers women and working married women are the focus group will discuss in this paper. This paper will propose recommendation of the emotionally distressed among working women to be offered an option of career counselling interventions using Person-Environment Fit Theories to cope with the impact of covid 19 pandemic on their psychological, job satisfaction and work environment.

1.2. WORKING WOMEN

The Covid 19 pandemic trailed to significant transformation in workplace routines required women workers working from home (Hupkau & Petrongolo, 2020). The requirement related with government order as Movement Control Order (MCO) to avoid the social contact such as face to face meeting and much more social activities to prevent the disease spread easily (Carli, 2020). Several studies have examined women's experiences of working from home during the COVID-19 pandemic (Möhring et al., 2021; Zoch et al., 2021). The population of working women was reported as risk population of negative ramification with their role (Chung et al., 2020; Farré et al., 2020; Hipp & Bünning, 2021), childcare responsibility and demand (Chung et al., 2020; Farré et al., 2020; Anderson and Kelliher, 2020; Andrew et al., 2020; Zoch et al. (2021), psychosocial well-being, work adjustment, work family conflict (Frone, 2000; Chandola, et.al., 2004), mental health issue (Almeida et al., 2020; Thibaut & van Wijngaarden-Cremers, 2020; Benassi et al., 2020; Zamarro & Prados, 2020), mental illness (Banks and Xiaowei, 2020; Maffly-Kipp et al., 2021; Paudel, 2021; Prati, 2021), and physical affect.

However, Pordelan et. Al (2022) shows that teleworking using the internet of 404 respondent among married working women has advantage such as family and psychological and disadvantage such as role conflict, lack of face-to-face position, and reworking. The findings suggest that teleworking has a

substantial impact on women's psychological well-being and family cohesion. In addition, the autoethnography research in Italy about negotiated the complex mother and worker roles, balancing work and family time while smart working (teleworking from home), suggest that they experience the pressures in gender roles within dual-career families (Rania, et. al, 2022). Thus, Benassi et al., (2020) researchers found that Italian working women confronting lockdown was a particularly stressful experience since they had to balance personal life, work, and raising children without additional support.

In addition, the prevalence of Saudi women's social, psychological, and professional roles during crisis was 82.24%, 83.40%, and 78.80% respectively, indicating the importance of Saudi women in coping with family crises during COVID-19 (Shalhoub & Hammad, 2021). The qualitative study of 12 married Saudi Arabia working women shows that they worked remotely even though their roles and family responsibilities made it a burden, perceived it as an appropriate working arrangement (Alfarran , 2021).

The study of a three-wave sample of German employees during the pandemic shows that women's psychological health was more adversely affected. Furthermore, the data shows that lockdown measures have an impact on exhaustion, particularly those working from home while childcare is unavailable (Meyer et al, 2021). Based on the mixed research design conducted on a sample of 265 Serbian women, the results showed that women working from home experienced a greater work-family conflict than usual since they had to juggle professional and personal roles simultaneously (Cikic & Rajacic, 2021).

In India, approximately 203 professionals women participated on the research for the impact of MCO while working from home format, the findings shown that in spite of the fact that these women's spouses are sharing some responsibilities of household and children, the primary responsibility still lies with the woman. Their working and non-working identities have merged with the emergence of paid work at home and most of the respondents reported compromising their work effectiveness on the job in order to spend time on household activities (Jasrotia & Meena, 2021). On the other hand, research by Kumar et. al. 2022 shows that professionals women had anxiety during Covid-19 period time when work from home caused moderate to severe anxiety in 32.09 % of respondents, with females experiencing much higher anxiety levels than their male counterparts (15.09 %). The number of women who are married (64%), living in a joint family (90.9%), and having children (90.9%) all contributed to the increased level of anxiety. According to the study, remote working has adversely affected women professionals' personal lives, worsening anxiety and having a detrimental impact on their personal, financial and professional lives (Kumar et al., 2022). Furthermore, 128 Indian working women employees which working in IT companies are interviewed through a structured interview using convenience sampling, the researcher found an insignificant relationship between work-life balance and job performance. The insignificant relationship is found between work engagement, and job performance. A significant positive relationship is found between work-life balance and mental well-being, job performance and mental well-being, work-life balance, and work engagement. The mental well-being and work engagement is not found as a mediator in the direct relationship of work-life balance and job performance (Gaikwad et. al.).

Malaysia is witnessing an increase in the number of working women who are married. This is because, according to current data, women make up 50% of the workforce, with 70% of them being married working women (Merican et al., 2011). Therefore, to compete in the global economy and market, women need to be included in the workplace in greater numbers. After the government published the Movement Control Order (MCO), the Women's Aid Organisation and Talian Kasih reported an increase of 44 percent and 57 percent in contacts, respectively, which includes domestic abuse as one of the reasons. Malaysia's Ministry of Women, Family and Community Development reported receiving almost 64,000 calls in the first three months of the pandemic, the majority of which were made by women under stress. The distress rate among Malaysian women (37.3%) is higher than that observed among Malaysian students during the epidemic (Kalok et al., 2020). According to a poll conducted by the Department of Statistics

Malaysia (2020), the biggest factors threatening Malaysians' emotional well-being are family, work, and finances. The Emotion stressor refers to naturally felt emotions, and the state-wide lockdown has led in increased stress and loneliness among women and vulnerable groups as a result of social separation and work disruptions. Research by Balakrishnan (2021) stated that COVID-19 has had an emotional impact on 1793 respondent of Malaysian women aged 24 years old and above who work from home, described women in this research ($M = 3.57$) reported severe stress as a result of the transition from working on-site to working from home, stating reasons such as a lack of motivation and trouble managing work and household responsibilities. In addition, according to reports provided by the Malaysian Women's Aid Organization, which recorded a surge in hotline calls made by abused women during the lockdown, the items used to gauge this stressor specifically pertain to the (bad) relationship with husbands/partners.

Despite all factor mention above, a low psychosocial well being consistently believe to be main factor for negative issues in mental health for working women and their career during Covid-19. If negative ramification of mental health is not treated, consequently, untreated symptoms may further increase and affected psychological wellbeing and career development. In this situations, career counselling sessions is one of the alternative intervention in treating individuals with mental health issues. The advantage of career counselling is that the approach will not leave any harmful for the individuals and the organization or employer. In addition, career counselling sessions approach will be implemented The Person Environment Fit (PEF) theories and the suggestions stage for at least 7 sessions.

1.3. PERSON-ENVIRONMENT FIT THEORIES AND CAREER COUNSELLING APPROACH

The Person Environment Fit (PEF) theories is based on the previous by conceptualization trait and factor theory and explain about the compatible between employees and their environment for whom wanted to make decision and adjustment for choose the appropriate world of work (French, et al.1982; Van Vienen, 2018; Renz, 2022). P–E fit is central to some conceptualizations of mental health: “Our basic notion conceives of adjustment as the goodness of fit between the characteristics of the person and the properties of his/her environment” (French et al.,1974). Trait theory and applied factors in career counseling sessions, born from needs pragmatic and urgent and offering solution for work adjustment especially in recent economic issue (Swanson, 1996) and the Covid-19 pandemic which, women employee particularly with caregiving and other circumstances responsibility struggles in a new spotlight.

On top of that, there are three assumptions underlying the PEF theories (Chartrand et al, 1991). First, the individual must looking for suitable environment by its characteristics. According to the theory work adjustment, individual (Lofquist & Dawis , 1991). Furthermore, Holland’s Term (1997), if someone try to do environment adjustment by themselves, they will consider about their skills, abilities, attitude, values, and role. Second, PEF model assumption is difference stage between people and the environment can linked by results, such as satisfaction, achievement, performance, stability, retention, and duration of work. PE Fit, burnout, job satisfaction, and turnover intention are four fit dimensions to three work-related outcomes: burnout, job satisfaction, and turnover intention. Employee’s burnout is a progressive psychological response to chronic work stress and involves emotional exhaustion (EE), depersonalization, and feelings of reduced professional efficacy (Maslach & Jackson, 1981). Turnover intention, regarded as the final step of withdrawal behavior (Tett & Meyer, 1993). Therefore, to overcome the positive impact towards working women with differences responsibility and situations, career counselling approach in the organization career counselling services are one of the steps forward. This PE Fit model covers 7 levels that are 1) intake interview, 2) identify variables development, 3) evaluation, 4) identify and problem solving, 5) Produce PEF analysis, 6) validate, explore and decision making, 7) follow-up.

Intake Interview. At this stage the counsellor will build a trust and rapport with the client, gather client information. Counsellor also need to identify current needs including family needs and individual needs. In addition, counsellors also need to identify the client's emotions, psychological distress, activities, schedule, cognitive and physical health. Discuss about making decisions and see how the client handles certain situations. At this stage of the interview as well, the counsellor needs to observe the client's personality, believe systems and principal.

Identify developmental variables. At this stage, the counsellor needs to explore the client's perception of themselves and the environment that shapes the client's itself, such as the family environment, working environment, community and support system.

Evaluation. At this stage, the counsellor needs to explore the abilities, values, needs of the reinforcer and the interests possessed by the client. To explore, counsellors can use existing questionnaire related such as career decision making, career adaptability, career resiliency, career adjustment etc.

Identify and problem solving. From the evaluation stage, counsellor identify client needs according to the result of any questionnaire and previous stage exploration. List the problems and discuss further interventions to aid the job and achieving clients need.

Produce PEF analysis. At this stage, the counsellor will look at the client's cognitive schema that is to identify what the client wants. Next, the counsellor needs to identify the criteria the client needs to venture into the desired field. Counsellors guide the client to have an optimal forecasting system that is to know the employee needs, policies, affair and exemption in certain organization and the opportunities available. This PEF analysis will also be made through diagrams to facilitate client understanding. These diagrams can also help the client find out which from the problem solving list accurate and suitable.

Validate, explore and decision making. At this stage, the counsellor and client will validate the PEF analysis that has been made. Clients have also explored the potential of the work environment. Next, the client will make the desired career decision making to achieve their needs.

Follow-up. The counsellor will assess the client's progress in the work-life balance and their achievement. If necessary, the counsellor will repeat the previous stages.

1.4. CONCLUSION

This paper has outlined a variety of psychosocial wellbeing and mental health issues among working women during the time of Covid -19 pandemic until now. The negative ramification listed such as, childcare, child education including online classes, home keeping, home productions, working from home and caregiving duties led to negative issues on psychological wellbeing and mental health for working women. Worldwide research narrated negative impact statistically on human mental health and wellbeing and this paper discussed specifically on working women. These challenges are structurally based and organization reinforced for many working women which is, the prevalent and urgent issue for employer, and career counsellor in the organizations. It is important for career counsellor to consider these particular challenges, so that the intervention might adopt appropriate career counselling theory approaches in their practices. In this paper reveal 7 stage in career counselling sessions as an career interventions for working women, the seven stage are, 1) intake interview, 2) identify variables development, 3) evaluation, 4) identify and problem solving, 5) Produce PEF analysis, 6) validate, explore and decision making, 7) follow-up. Thus, this stage and theoretical concept offer more benefits to the working women clients in

their mental health and psychosocial wellbeing to feel comfortable with their career development, career adaptability, career advancement and career resilient.

REFERENCE

- Alfarran, A. K. S. (2021). Changing workplace patterns in Saudi Arabia: a gender lens. *Journal of Gender Studies*. <https://doi.org/10.1080/09589236.2021.2011169>
- Andela, M., & van der Doef, M. (2019). A Comprehensive Assessment of the Person–Environment Fit Dimensions and Their Relationships With Work-Related Outcomes. *Journal of Career Development*, 46(5), 567–582. <https://doi.org/10.1177/0894845318789512>
- Anderson, D., and Kelliher, C. (2020). Enforced remote working and the work-life interface during lockdown. *Gender Manage.* 35, 677–683. doi: 10.1108/GM-07-2020-0224
- Andrew, A., Cattan, S., Costa Dias, M., Farquharson, C., Kraftman, L., Krutikova, S., et al. (2020). How Are Mothers and Fathers Balancing Work and Family Under Lockdown? IFS Briefing Note BN290. Available online at: <https://www.ifs.org.uk/uploads/BN290-Mothers-and-fathers-balancing-work-and-life-under-lockdown.pdf> (accessed April 14, 2021).
- Al-Asfour, A., Tlaiss, H., Khan, S., & Rajasekar, J. (2017). Saudi women’s work challenges and barriers to career advancement. *Career Development International*, 22(2), 184–199.
- Balakrishnan, V., Mohamad Nor, A., & Zainal, N. Z. (2021). COVID-19 nationwide lockdown and it’s emotional stressors among Malaysian women. *Asia Pacific Journal of Social Work and Development*, 31(3), 236–249. <https://doi.org/10.1080/02185385.2021.1886976>
- Banks, J., and Xiaowei, X. (2020). The mental health effects of the first two months of lockdown during the COVID-19 pandemic in the UK. *Fiscal Stud.* 41, 685–708. doi: 10.1111/1475-5890.12239
- Benassi, E., Vallone, M., Camia, M., and Scorza, M. (2020). Women during the Covid-19 lockdown: more anxiety symptoms in women with children than without children and role of the resilience. *Mediterranean J. Clin. Psychol.* 8, 19. doi: 10.6092/2282-1619/mjcp-2559
- Burn, E., Tattarini, G., Williams, I., Lombi, L., & Gale, N. K. (2022). Women’s Experience of Depressive Symptoms While Working From Home During the COVID-19 Pandemic: Evidence From an International Web Survey. *Frontiers in Sociology*, 7. <https://doi.org/10.3389/fsoc.2022.763088>
- Carli, L. L. (2020). Women, gender equality and COVID-19. *Gender Manage.* 35, 647–655. doi: 10.1108/GM-07-2020-0236
- Chen, C. P., & Morris, L. (2020). Improving career wellbeing for first-time expectant mothers. *Australian Journal of Career Development*, 29(2), 137–143. <https://doi.org/10.1177/1038416220919827>
- Chung, H., Seo, H., Forbes, S., and Birkett, H. (2020). Working From Home During the COVID-19 Lockdown: Changing Preferences and the Future of Work. Available online at:

<https://www.birmingham.ac.uk/Documents/college-social-sciences/business/research/wirc/epp-working-from-home-COVID-19-lockdown.pdf> (accessed April 14, 2021).

- Chandola T, Martikainen P, Bartley M, Lahelma E, Marmot M, Michikazu S, Nasermoaddeli A, Kagamimori S. (2004). Does conflict between home and work explain the effect of multiple roles on mental health? A comparative study of Finland, Japan, and the UK. *International Journal of Epidemiology* ;33(4):884- 93.
- Danna K, Griffin RW. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*;25(3):357-84.
- Farré, L., Fawaz, Y., Gonzalez, L., and Graves, J. (2020). How the COVID-19 Lockdown Affected Gender Inequality in Paid and Unpaid Work in Spain. IZA Discussion Paper No. 13434, July 2020. Available online at: <http://ftp.iza.org/dp13434.pdf> (accessed April 14, 2021).
- French, J. R. P., Jr., Rodgers, W., & Cobb, S. (1974). Adjustment as person-environment fit. In G. V. Coelho, D. A. Hamburg, & J. E. Adams (Eds.), *Coping and adaptation* (pp. 316–333). New York: Basic Books.
- French, J.R., Caplan, R.D., and Van Harrison, R. (1982), *The Mechanisms of Job Stress and Strain* (Vol. 7), J. Wiley, Chichester.
- Frone MR.(2000) Work-family conflict and employee psychiatric disorders: The national comorbidity survey. *Journal of Applied Psychology* ;85(6):888.
- Gilbreath, B. (2008). Creating Career-Conducive Organizations: A Primary Intervention Approach. *Advances in Developing Human Resources*, 10(1), 8–31. <https://doi.org/10.1177/1523422307310109>
- Hipp, L., and Bünning, M. (2021). Parenthood as a driver of increased gender inequality during COVID-19? Exploratory evidence from Germany. *Eur. Soc.* 23, S658–S673. doi: 10.1080/14616696.2020.1833229
- Hupkau, C., and Petrongolo, B. (2020). Work, care and gender during the COVID- 19 crisis. *Fiscal Stud.* 41, 623–651. doi: 10.1111/1475-5890.12245
- Maffly-Kipp, J., Eisenbeck, N., Carreno, D. F., and Hicks, J. (2021). Mental health inequalities increase as a function of COVID-19 pandemic severity levels. *Soc. Sci. Med.* 285, 114275. doi: 10.1016/j.socscimed.2021.114275
- McLaren, H. J., Wong, K. R., Nguyen, K. N., & Mahamadachchi, K. N. D. (2020). Covid-19 and women's triple burden: Vignettes from Sri Lanka, Malaysia, Vietnam and Australia. *Social Sciences*, 9(5). <https://doi.org/10.3390/SOCSCI9050087>
- Möhring, K., Naumann, E., Reifenscheid, M., Wenz, A., Rettig, T., Krieger, U., et al. (2021). The COVID-19 pandemic and subjective well-being: longitudinal evidence on satisfaction with work and family. *Eur. Soc.* 23, S601–S617. doi: 10.1080/14616696.2020.1833066

- Olafsdottir L. (2004). Prevention, health and safety program in companies provide a more successful and healthier workplace. *Work: A Journal of Prevention, Assessment and Rehabilitation* ;22(1):27-30.
- Osterrieder, A., Cuman, G., Pan-Ngum, W., Cheah, P. K., Cheah, P. K., Peerawaranun, P., Silan, M., Orazem, M., Perkovic, K., Groselj, U., Schneiders, M. L., Poomchaichote, T., Waithira, N., Asarath, S. A., Naemiratch, B., Ruangkajorn, S., Skof, L., Kulpijit, N., MacKworth-Young, C. R. S., Cheah, P. Y. (2021). Economic and social impacts of COVID-19 and public health measures: Results from an anonymous online survey in Thailand, Malaysia, the UK, Italy and Slovenia. *BMJ Open*, 11(7). <https://doi.org/10.1136/bmjopen-2020-046863>
- Paterson, T.A., Luthans, F. and Jeung, W. (2013), “Thriving at work: Impact of psychological capital and supervisor support”, *Journal of Organizational Behavior*, Vol. 35 No. 3, pp. 434-446.
- Pordelan N., Hosseinian S., Heydari H., Khalijian S., Khorrami M. (2022), Consequences of teleworking using the internet among married working women: Educational careers investigation, *Education and Information Technologies*, Vol. 27 (3);4277-4299. DOI10.1007/s10639-021-10788-6.
- Rania N., Parisi R., Lagomarsino F. (2022). Mothers and Workers in the Time of COVID-19: Negotiating Motherhood within Smart Working. Sage Publication inc. DOI10.1177/08912416221075833
- Renz, F. M. (2022). Person-environment fit: a luxury good for those who can afford it? Evidence-Based HRM. <https://doi.org/10.1108/EBHRM-04-2021-0072>
- Schieman, S., and S. Reid. 2009. Job authority and health: Unraveling the competing suppression and explanatory influences. *Soc Sci Med* 69(11):1616–624.
- Schulz, A. J., B. A. Israel, D. R. Williams, E. Parker, A. Becker, and S. James. 2000. Social inequalities, stressors and self-reported health status among African American and white women in the Detroit metropolitan area. *Soc Sci Med* 51(11):1639–53.
- Sensoy-Briddick, H. (2009). The Boston Bureau’s first counselling staff. *The career development quarterly*, 57, 215-224. Doi:10.1002/j.2161-0045.2009.tb00107
- Shanmugam, H., Ariff Juhari, J., Nair, P., Soon Ken, C., & Chong Guan, N. (n.d.). Impacts of COVID-19 Pandemic on Mental Health in Malaysia: A Single Thread of Hope.
- Spreitzer, G., Sutcliffe, K., Dutton, J., Sonenschein, S. and Grant, A.M. (2005), “A socially embedded model of thriving at work”. *Organization Science*, Vol. 16 No. 5, pp. 537-549.
- Zamarro, G., and Prados, M. J. (2020). Gender differences in couples’ division of childcare, work and mental health during COVID-19. *Rev. Econ. Household*. 19, 11–40. doi: 10.1007/s11150-020-09534-7
- Zoch, G., Bächmann, A., and Vicari, B. (2021). Who cares when care closes? Care-arrangements and parental working conditions during the COVID-19 pandemic in Germany. *Eur. Soc.* 23, S576–S588, doi: 10.1080/14616696.2020.1832700

CHAPTER 2

Military Children on the Move: A Review on Psychological Effects of Multiple School Transitions

Saniya Bedi¹ & Waheeda Khan¹

*¹Faculty of Behavioural Sciences, Shree Guru Gobind Singh Tricentenary University,
Gurugram, India*

Abstract: For military families, ‘change’ is a defining term. Military families are usually 'on the move' every few years and, in some cases, even after a few months. Military families go through transitions so frequently that they usually do not have the time and chance to process these transition/(s). If these transitions involve the serving member's deployment, it can be doubly stressful. When one family member leads a challenging and uncertain life, the ripple effects on other family members are a given. For the school-going military children, transition means a change in their ecosystem, starting with the most essential change-their school. This entails dealing with multiple stressors like transitioning into a new school setting, increased pressure to do well academically, dealing with the loss of friendships, and positions for which they may have worked extremely hard, among others. With each transition, military children have to figure out how to ‘fit in’ not just in the new school but also in a new culture, especially if the shift is across a different state or country. As transitions are a part of military life and culture, they are normalised, and the repercussions or learnings are not paid much attention to. The present study attempts to review existing literature about the impact of school transitions on military children’s well-being. The paper is summarised by listing potential implications and suggesting ways to lessen the influence of frequent school transfers. Given that the school environment has a substantial impact on children’s well-being, the mentioned recommendations can assist schools in helping improve the well-being of the student population.

Keywords: *Military children, school transitions, well-being*

1.1. INTRODUCTION:

Military families' experiences and life courses are distinct from the non-military population. Challenges are a part of any family. However, military families encounter particularly unique challenges compared to their civilian counterparts. Military families experience deployments, increased mobility and transitions, school transfers, and the possibility of service members' injury or bereavement while serving (Chandra et al., 2010; Doss, 2017). A close review of the existing literature shows that challenges encountered by spouses are documented in the Indian context, however, to our knowledge, not much research has explored the challenges encountered by military children in the Indian context. Misra (2019), through their in-depth

interviews, explored the difficulties faced by Indian military wives while their spouses are deployed or posted to a field area. Themes like work overload, challenges due to relocation, single parenting stress, and concerns related to deployed spouses emerged. The effects of parental military deployment or field posting on the adolescent population were explored by Misra and Singh (2014). Significant sources of stress were the father's absence, shifts in roles and duties, adjustments to routines, and the lack of parental assistance with homework, participation in activities, and advice, etc.,

Out of all the challenges, significant research on military personnel and their families have focused on the effects of deployments (Doss, 2017). Compared to their civil counterparts, who are more likely to settle in their own region and particular culture, members of the Indian Armed Forces have a different living environment. Due to their deployments, frequent moving between states is extremely common. When discussing challenges, it should be noted that moving is difficult for the entire family, not just the serving family member(s). However, the perspective of military children has rarely been studied, despite the fact that it is essential information to take into account when developing intervention strategies (Bradshaw et al., 2010). With this rationale, we start by highlighting the impact of relocation on military children. Moving ahead, out of all the challenges, we chose to spotlight the effects of frequent school transfers on school-going military children. By highlighting the challenges of school transitions that come up by being part of a military family for the children and adolescent population, this paper offers insights into how this life stressor accumulates and impacts the developmental aspect of this population, as well as insights into recommendations that mitigate their impact or help provide a safety net, such as a sense of belongingness and opportunities for growth, assist them in dealing with the challenges and expanding their protective factors.

1.2. RELOCATION AND MILITARY CHILDREN AND ADOLESCENTS

Moving frequently is acknowledged as a significant military lifestyle stressor that might interfere with a child's friendships, educational opportunities, connections to the community, and extracurricular activities (Barker & Berry, 2009). While transfers mean a chance to get acquainted with a better understanding of cultural diversities, a chance to make new friends, develop well-rounded personalities, and travel the country and also internationally, in some cases, it comes with its own share of challenges (Ruff & Keim, 2014). When a child moves, they are exposed to a new culture, differing academic standards, and a large variety of students from various backgrounds. Continual readjustment also hinders a child's capacity to build enduring relationships (Sherman & Glenn, 2011).

Chandra et al. (2010) investigated the effect of relocation on age. They claimed that children who move during middle or high school are more likely to experience loneliness and exclusion from their classmates than children who move when they are younger, under the age of five. It can be particularly difficult to transition schools during this developmental stage since adolescents start forming social ties more deeply than younger children, who may be more tolerant of change and new students (Doss, 2017). Easterbrooks et al. (2013) also emphasized on the crucial impact that the developmental stage plays in how military children and families deal with and adjust to adversities. Schools play a significant role in the all-round development of children and adolescents, yet the impact of school transfers has been sparsely explored in the Indian military

population. The schools that military children attend and leave as they move around the country have distinct cultures, curricula, standards, course options, timetables, and evaluation criteria, etc.,. As a result, students with military backgrounds encounter challenges with each transfer.

1.3. SCHOOL TRANSFERS, AND ITS IMPACT ON MILITARY CHILDREN AND ADOLESCENTS:

A child spends approximately fifteen years at school. It is a valuable and often essential source for promoting the child's intellectual and social development. School dominates the microsystem of the child after their family. One of the most significant aspects of a child's socialization process after their home is their school. It serves as a microcosm of the society at large. It is where they form bonds and learn skills, contributing to their growth and flourishing (Hawkins et al., 2004). However, for military children, schools are not a stable system as they need to change schools with relocation. In their research, Aronson and Perkins (2013) found that school transition topped the charts for the most common stressors faced by military children. In addition, research has indicated that in contrast to civilian peers, military adolescent students face greater adverse outcomes during their academic life as academic performance suffers after a student changes schools (Rumberger, 2015).

We have categorised commonly associated challenges with frequent school transitions in military children:

1. Academic challenges

Due to frequent school changes, military children confront several academic obstacles. This can be doubly stressful in the case of mid-year transfers. Military children's education is compromised by the curriculum and academic requirements disparities, which may cause them to repeat courses and classes and skip important concepts (Bradshaw et al., 2010).

2. Old and new friendships

Military children are frequently required to end friendships with peers from their old school and form new ones at their new school. In a qualitative study conducted by Bradshaw et al. (2010), the difficulty of forming and preserving close connections were the stressors associated with school transfers that were most frequently reported. Many students said that because their close friendships ended due to the transitions, they avoided forming close, meaningful bonds with their peers at the new school.

3. Understanding complexities of military culture

Mmari et al. (2010) reported that most of the parents in their study stated that appropriate training is required for school employees to cope with and support military children and challenges like deployment. Administrators, teachers, and counsellors in schools frequently lack knowledge of the particular concerns that military children face (Harrison & Vannest, 2008), which makes them ignorant of their challenges. Fenell (2008) proposed that educators' interactions with military students may be influenced by political views or unfavourable prejudices they continue to hold. It is evident from the stated categories of challenges that the effects extend beyond the classroom, and difficulties show themselves as behavioural issues, socio-emotional difficulties, and fewer social relationships.

1.4. NEED FOR CHANGE

Through the literature review in the previous sections, it can be concluded that while the challenges faced by this particular population are unique, more attention needs to be paid towards bringing about positive changes in their ecosystem. Therefore, some recommendations are aimed at making their primary ecosystem more inclusive and understanding so that their frequent transfers become less challenging.

1. Recruiting culturally aware counsellors: in India, a positive change towards mental health awareness has been seen in schools where most schools now have a counsellor to take care of the mental health requirements of children. Army schools also frequently hold recruitment drives for counsellors. However, as a unique population, military children require counsellors who are aware of the culture, challenges, and emotional upheaval that they go through. Furthermore, the counsellor/(s) may specifically focus on five aspects:

a. Coping with stress faced during school transfers-although transfers are a constant part of the military child, the upheaval it causes is unique every time. Acquainting oneself with the new school's culture can be extremely challenging when one has to focus on ensuring academic excellence while balancing co-curricular activities and forming friendships while grieving the loss of old friendships, dreams and successes. The counsellor could hold orientation programs for newcomers. This would entail making the children understand the school policies, rules, regulations, ways of functioning, etc., This interaction would also lead to enhancing comfort in sharing concerns with the counsellor, if any, in future.

b. To pay special attention to the children whose parent/(s) are deployed in insurgency areas-research has indicated that deployment leads to unique pressures on the family unit. With added responsibilities and anxiety for the safety of the deployed parent/(s), a military child may find it challenging to manage their emotions. One-on-one support at this time and offering them a safe space to share and seek resolutions would be helpful.

c. Coping with the loss of the serving parent-with the high-risk profession, there is a chance of the child losing their deployed parent/(s). Grief can be very complicated and affect each person uniquely compared to others. Offering support and a space for them to grieve can be helpful. Forming support groups for the children can also aid to their well-being.

d. Preventive and promotional programs-school counsellors can take steps to work directly with students by creating and executing preventive initiatives and programs that help children feel supported and a part of the community. In addition, school counsellors can better assist military children and families in crises by being aware of their particular needs and challenges (Harrison & Vannest, 2008).

e. Awareness building-sometimes we wish to relate and be empathetic towards others, however, we do not know their narratives, hence relating to them becomes complicated. This can be handled by enhancing awareness around military children's lives, challenges, and experiences. This would also help the teachers and staff understand them more closely.

2. Support workshops/sessions: The counsellor can consider other members of the children's ecosystem to help them better adjust. This could include having regular counselling sessions/workshops with:

a. Parents: Military parents are also stressed when transfers happen as they uproot and have to take on additional responsibilities immediately. These sessions could serve two purposes. Firstly, this would create a safe space for parents and the children to voice out their needs and apprehensions. Secondly, these sessions could lead to forming effective parent networks where newly transferred families can interact and offer support to each other.

b. Teachers: This would involve understanding and training the teachers of the school as to how they can deal with military children. This would involve understanding military-related concerns and strategies that would be useful. Particular focus should be on children whose parent/(s) have been deployed in insurgency areas, are shifting schools, or may have lost their parent/(s). Building a sympathetic and encouraging relationship with this student demographic is crucial, given the school environment's significant impact on students' adjustment to school transitions. Teachers and administration should be given awareness and sensitivity training to facilitate supportive relationships with military children.

3. Academic support: Transfers at any time of the year can be challenging. The pressures to perform well stay, irrespective. Special support classes could be held to support the new students.

4. Recognise the counsellor: Apart from the already attached taboo about going to mental health professionals, sometimes students are unaware of the potential source of care and support a counsellor could provide them. Therefore, the school must focus on enhancing awareness and encouraging the students to visit the counsellor.

5. Peer support groups: One of the major concerns with school transitions is developing new friendships. Depending upon the total strength of the school, a proportionate number of groups can be created. These would be peer support groups. The children in this group would be the ones who would have knowledge and experience regarding multiple transfers and the stress corresponding to the same. Various military schools could coordinate and devise methods of getting in touch with newcomers who are about to join the school. This would ensure that children are in touch with the new school's peer support team before joining the school. The counsellors could give the peer supporters training in basic counselling skills and how they could refer children to the counsellor depending upon their needs.

6. Special interview/reservation in extra-curricular or sports teams: When children move from one school to another, they potentially lose on the positions they would have worked hard for over the years. For example, in the sports team or the debating society, etc., Special interviews or reservations can be initiated uniformly in schools so that the new joiners get a chance to showcase their skills and previous hard work. A standardised procedure can be put in place for the same.

7. Strength-based interventions: To increase the awareness of the importance of strength-based interventions to combat the negative impact of frequent school transitions, positive-psychology

based interventions should be undertaken with military children. These interventions will help in enhancing resilience,

1.5. FURTHER RESEARCH, IMPLICATIONS AND CONCLUSION:

In the present research paper, we have attempted at comprehensively reviewing the literature on the effects of frequent school transfers on children belonging to military families. Research on the lives of military children has grown steadily over time, but most of the same comes from developed nations. Significant and considerable gaps exist in the provision of research for Indian military children. Moreover, the existing literature tends to focus on perceived problems or challenges. Very little research focuses on the protective factors and their utilisation for strengths-based interventions to combat the negative influences of frequent school transitions on the military child. This paper demonstrates that children from military backgrounds have considerable difficulties in school transfers, especially when those transitions happen frequently. However, a lot is unexplored and needs more investigation, both to comprehend the scope of these difficulties and to aid in creating tools that will better serve these pupils. Overall, this study contributes to the research on the military children population.

REFERENCES

- Aronson, K., & Perkins, D. (2013). Challenges faced by military families: Perceptions of United States corps school liaisons. *Journal of Child and Family Studies*, 22 (3), 516-525. doi:10.1007/s10826-012-9605-1
- Barker, L. H., & Berry, K. D. (2009). Developmental Issues Impacting Military Families With Young Children During Single and Multiple Deployments. *Military Medicine*, 174, 1033-40.
- Bradshaw, C. P., Sudhinaraset, M., Mmari, K., & Blum, R. W. (2010). School transitions among military adolescents: A qualitative study of stress and coping. *School Psychology Review*, 39 (1), 84-105.
- Chandra, A., Lara-Cinisomo, S., Jaycox, L. H., Tanielian, T., Burns, R. M., Ruder, T., & Han, B. (2010). Children on the homefront: the experience of children from military families. *Pediatrics*, 125 (1), 16–25. <https://doi.org/10.1542/peds.2009-1180>
- Doss, A. N. (2017). *Military lifestyle's impact on children's adjustment*, [Master's Thesis, Stephen F. Austin State University]. Electronic Theses and Dissertations. <https://scholarworks.sfasu.edu/cgi/viewcontent.cgi?article=1134&context=etds&httpsredir=1&referer=https://scholar.google.ca/>
- Easterbrooks, M. A., Ginsburg, K., & Lerner, R. M. (2013). Resilience among military youth. The future of children, 99-120.

- Fenell, D. L. (2008). A distinct culture. *Counseling Today*, 50 (12), 8–9. Retrieved from <http://ct.counseling.org/2008/06/a-distinct-culture/>
- Harrison, J., & Vannest, K. J. (2008). Educators supporting families in times of crisis: Military reserve deployments. *Preventing School Failure*, 52 (4), 17–24. doi:10.3200/PSFL.52.4.17-24
- Hawkins, J. D., Smith, B. H., & Catalano, R. F. (2004). Social Development and Social and Emotional Learning. In J. E. Zins, R. P. Weissberg, M. C. Wang, & H. J. Walberg (Eds.), *Building academic success on social and emotional learning: What does the research say?* (135–150). Teachers College Press.
- Mmari, K. N., Bradshaw, C. P., Sudhinaraset, M., & Blum, R. (2010). Exploring the role of social connectedness among military youth: Perceptions from youth, parents, and school personnel. *Child and Youth Care Forum*, 39, 351–366. doi:10.1007/s10566-010-9109-3
- Misra, P. (2019). Exploring the Challenges Faced by Indian Military Wives during Spousal Deployment/ Field Area Posting. *The International Journal of Indian Psychology*, 7(3). <https://ijip.in/wp-content/uploads/2019/09/18.01.045.20190703.pdf>
- Misra, P., & Singh, V. (2014). Exploring the Impact of Parental Military Deployment/Field Posting on Adolescents in Indian Military Families. *Psychological Studies*, 59 (1), 36-43.
- Ruff, S. B., & Keim, M. A. (2014). Revolving Doors: The Impact of Multiple School Transitions on Military Children. *The Professional Counselor*, 4 (2), 103–113. doi:10.15241/sbr.4.2.103
- Rumberger, R. W. (2015). *Student Mobility: Causes, Consequences, and Solutions*. Boulder, CO: National Education Policy Center. Retrieved from [http://nepc.colorado.edu/publication/student mobility](http://nepc.colorado.edu/publication/student%20mobility).
- Sherman, M. D., & Glenn, M. A. (2011). Opportunities for school psychologists working with children of military families. *Communiqué: The Newspaper of the National Association of School Psychologists*, 39 (5), 17–19.

CHAPTER 3

Loneliness, Eating Habits and Mental Health in College Students: A Correlational Study

Abhishek Banga¹ & GS Kalooya²

¹MoWCD, Delhi, India

²NDDTC, AIIMS, New Delhi, India

Abstract: The aim of this study was to assess relationships among loneliness, eating habits and mental health (depression, anxiety & stress) and to see the impact of loneliness on various variables. A total of 100 undergraduate students within the age range of 19 to 26 years participated in the study. Scores for loneliness, eating habits, and depression, anxiety & stress were obtained using DLS-short student version, EAT-26, and DASS-42 respectively. In addition, BMI was calculated by self-reported height & weight for each participant. Relationships were found among loneliness, eating habits, depression, anxiety & stress and BMI by using correlation, regression analysis and path analysis (SEM) after adjusting all variables for z-score. Loneliness was found to be positively correlated with depression [$\beta = 0.14$, $p = 0.05$], and stress [$\beta = 0.14$, $p = 0.05$]. On contrary, loneliness was found to be negatively associated with EAT [$\beta = -0.24$, $p = 0.05$] and BMI [$\beta = -0.12$, $p = 0.05$]. Other significant positive relationships were seen among eating habits and mental health. The model seems to be a good-fit [RMSEA = 0.077, CFI = 0.994, TLI = 0.957]. The results of this study suggested significant relationships among all the variables. Prospective negative associations were reported for Loneliness & Eating habits and Loneliness and BMI. This may be particularly attributed to Indian culture. The findings of the study may be utilised for determining influencing factors and trends which might be responsible for affecting physical and mental well-being among college students.

Keyword: *Loneliness, Mental Health, Eating behaviour, College Students*

1.1. INTRODUCTION

Loneliness can be regarded as subjective dissatisfaction with the interpersonal relationships due to prominent changes in social relationships and/or needs and desires for such relationships in one's respective society (Schmitt & Kurdek, 1985; Gong & Nikitin, 2021). Loneliness is highly prevalent in the modern day society among almost all age groups despite of highly advanced available modes of connecting and communicating with each other (Cacioppo & Cacioppo, 2018; Gong & Nikitin, 2021). The most vulnerable among these are university students who are in their transition phases from school to college life. This can be attributed to various issues like adjustment to the new environment and demands, separation from older friends and forming new social relationships. Thus, college students are more likely to feel lonely in their college life (Zhang et al., 2020; Nicolaisen & Thorsen, 2014; Gong & Nikitin, 2021)

1.1.1. Loneliness and Eating Habits

Literature accounts for mixed and varied evidences for loneliness and eating habits which may depend on the developmental stage of life, culture, and socio-economic status. However, loneliness has also found to be associated with unhealthy eating habits. For instance, in a cross-sectional study, 169 undergraduate students were recruited to assess their emotional eating behaviour. Under the feelings of loneliness, students either sustained their food intake or increased it. Under emotional eating episodes, students preferred high calorie and high fat content foods (Alalwan et al., 2019). Contrasting results were obtained in a cross-sectional study to assess relationship between eating behaviour and diet quality. Results showed that people who eat alone suffer from nutritional deficiencies (Chae et al., 2018). Lower diversity of food intake and unhealthy dietary patterns were found to be associated with people living alone. Perceived social support is known to be a protective factor and has a significant positive effect on eating habits (Glozah & Pevalin, 2015).

1.1.2. Loneliness and mental Health

Higher levels of loneliness are linked with mental health related problems like depression, behavioural problems like substance use, disordered eating habits and various other negative outcomes related to academic activities like poor academic performance, higher dropout rates, year-backs and truancy among students (Zhang et al., 2020; Segrin et al., 2018; Koski & Naukkarinen, 2017; Benner, 2011; Pritchard & Yalch, 2009). Loneliness poses a significant threat to mental health (Beutel et al., 2017; Wang et al., 2018; Yanguas et al., 2018). Literature suggests about the existence of a cyclic relationship between loneliness and mental health problems (depression, anxiety and stress). These variables often co-occur with each other. In a longitudinal study, adolescents were recruited in three groups: group 1 (n= 1,116), group 2 (n= 1,423), and group 3 (n= 549) to examine relationships among loneliness, depression and social anxiety and their temporal sequence. They found the presence of a vicious cycle between feelings of loneliness and social anxiety. Also, anxiety seems to play a potential antecedent of loneliness and depression (Danneel et al., 2019). In another report, Danneel et al. (2020) with group 1 (n= 549), group 2 (n= 811) and group 3 (n= 1101) showed co-developmental trends of loneliness, social anxiety and depression among adolescents. All the variables were found to be co-developing and correlating with each other. Loneliness was also found to be playing a mediating role among depression, anxiety and social skills including expressiveness, control and sensitivity in students (n= 2,054) from two residential colleges of US (Moeller & Seehuus, 2019).

1.1.3. Eating Habits and Mental Health

Eating habits are associated with mental health. Changes in either of them can cause a dramatic impact on each other. For instance, in a cross-sectional study including more than 21,978 university students from 28 countries, it was found that infrequent and/or frequent skipping of the breakfast is linked to depression, loneliness, sleep problems, poor academic performance and other psychological problems (Pengpid & Peltzer, 2020). Similar results were obtained in a web-based cross-sectional survey aimed to differentiate between core symptoms of night eating syndrome. A total of 8348 Japanese citizens were recruited for the study ages 16–79 years. Evening hyperphagia and nocturnal ingestion were associated with significant higher scores of depression and anxiety. Other factors like younger age, smoking, living alone and BMI were also found to be associated

to these symptoms (Matsui et al., 2021). In a nationally representative cross-sectional survey of 65,212 students, it was found that positive eating habits and dietary intake are negatively associated with perceived stress and symptoms of depression. Also, unhealthy dietary habits are associated with perceived stress and symptoms of depression (Hong & Peltzer, 2017).

1.2. PURPOSE OF THE STUDY

There is a paucity of such studies based on Indian students. Also, there is a dire need to shift the focus on mental health and related aspects in Indian students. Hence, this study was planned to assess relationships among loneliness, eating habits and mental health (depression, anxiety & stress) and to see the directing effects of loneliness on other variables (depression, anxiety, stress and eating habits) by the help of path diagrams. Path analysis based on structural equation modelling (SEM) was used for synthesising the final output (Streiner, 2005).

Objectives:

- (1) To see the relationship between loneliness & eating habits.
- (2) To see the relationship between loneliness and mental health.
- (3) To see the relationship between mental health and eating habits.
- (4) To see the effect of loneliness on mental health and eating habits.

1.3. MATERIALS AND METHODS

1.3.1. *Research Design:* This study used cross-sectional design.

1.3.1.1. *Sample*

A sample of 100 undergraduate male students within the age range of 19 to 26 years participated in the study from different colleges of Delhi who able to understand Hindi and English and gave written consent. A total of five college campuses were selected for data collection on the basis of convenience of the researcher and each student was individually approached to participate in the study.

1.3.1.2. *Measures:*

Following tools were used to collect the data.

Socio-demographic data sheet (Developed by the researcher) - Student's age, height and weight were collected.

DLS-Short Student Version (Schmidt & Sermat, 1983) – It is a 20-item scale (short version) designed to measure the subjective level of satisfaction with social relationships among students in four domains: Familial, Romantic or sexual, Friendships and relations with larger groups or community. Each item is marked either as “True” or “False”. Scores obtained more than 10 on the scale indicate higher levels of loneliness (Simmons et al., 1991).

EAT-26 (Garner et al., 1982) – It is a 26-item scale based on 6-point Likert scale. It is comprised of three parts – (a). Self-reported height & weight to compute BMI, (b). 26 items to assess eating habits and (c). Five behavioural questions to assess disordered eating behaviours over past 6 months.

DASS-42 (Lovibond & Lovibond, 1995) – Depression Anxiety Stress Scale (DASS) is a self-report 42-item tool to measure psychological distress in terms of depression, anxiety and stress over the past week. The scale is subdivided into three scales each containing 14 items. Scores for depression (≥ 10), anxiety (≥ 8) and stress (≥ 14) suggest a need of intervention.

Statistical Analysis:

Data Analysis was performed using an open-source statistical program called Jamovi based on R-programming (Jamovi Project, 2021). Descriptive statistics was used to examine characteristics of the sample and variables under consideration. Root mean square error of approximation (RMSEA), Goodness of fit index (GFI), Comparative fit index (CFI), and Tucker Lewis Index (TLI) were utilised to evaluate fitness of the model. Correlation and Regression coefficients were calculated to find significance of the relationships among desired variables. After adjusting all variables for z-score, path analysis (SEM) was performed to specify the directional nature of relationships and their closeness.

Procedure

Students were first informed about the aims and procedures of the current study, process of data collection, confidentiality, harms and benefits of the study, their voluntary participation without monetary benefits and option to withdraw any time during the procedure. Each participant provided a written consent. Post-data collection, data was recorded manually in Jamovi. Final report was prepared using final outcomes. Scores for loneliness, eating habits, depression, anxiety and stress were obtained using DLS-short student version, EAT-26, & DASS-42 respectively. In addition, BMI was calculated by self-reported height & weight for each participant.

1.4. RESULTS

Results were written as per the objectives of the study.

Descriptive analysis

Table 1 showing mean, SD, and range of various variables

	N	Mean	SD	Range	Minimum	Maximum	Skewness (SE = 0.241)	Kurtosis (SE = 0.478)
Age	100	20.09	1.26	6	19	25	1.787	4.2764
Loneliness	100	8.68	2.92	17	0	17	0.237	1.0539
Loneliness high (>10)	21	12.8	1.97	6	11	17	0.885	-0.503
Depression	100	13.25	9.22	42	0	42	0.672	0.0954
Depression high (≥ 10)	60	19.1	7.10	32	10	42	1.07	1.05
Anxiety	100	13.52	6.98	33	2	35	0.67	0.0747
Anxiety (≥ 8)	76	16.1	6.03	27	8	35	0.874	0.422
Stress	100	16.81	8.13	40	2	42	0.587	0.1186
Stress High (≥ 14)	58	22.2	6.22	28	14	42	1	0.784
EAT	100	15.59	10.41	61	1	62	1.337	3.016
EAT high score (≥ 20)	28	28.8	8.91	42	20	62	1.99	6.04
BMI	100	21.09	3.02	13.2	14.8	28	0.122	-0.6249

The sample consisted of 100 college students from Delhi. Their ages ranged from 19 years to 25 years ($M = 20.1$, $SD = 1.26$) (*Table 1*). A total of 21% of students were found to be under-weight, 66% had normal weight and 13% of them were overweight.

Table 2: Shows correlation Matrix

	Loneliness	Depression	Anxiety	Stress	EAT	BMI
Loneliness	—					
Depression	0.241	—				
Anxiety	0.086	0.744	—			
Stress	0.235	0.767	0.741	—		
EAT	-0.175	0.292	0.325	0.164	—	
BMI	-0.12	0.024	0.038	0.058	0.04	—

Stress positively correlated with loneliness, depression and anxiety. Eating habits positively correlated with depression and anxiety. Loneliness positively correlated with depression.

Table 3: Frequency distribution showing severity of DASS, EAT-26 & BMI w.r.t DLS-short form scores

DASS-Depression						
Loneliness DLS	Normal	Mild	Moderate	severe	extremely severe	Total
High	5	5	5	2	4	21
Low	35	8	20	12	4	79
Total	40	13	25	14	8	100
DASS- Anxiety						
High	7	1	5	1	7	21
Low	17	7	23	18	14	79
Total	24	8	28	19	21	100
DASS-Stress						
High	8	3	2	6	2	21
Low	38	14	19	8	0	79
Total	46	17	21	14	2	100

Low levels of loneliness were prevalent in significantly larger proportion of the sample (79%) and 21% of the participants reported to have higher levels of loneliness on DLS-short student version. About half of the participants (47%) reported moderate to extremely severe levels of depression, 68% of the participants reported moderate to extremely severe levels of anxiety and 37% of the participants reported moderate to extremely severe levels of stress. Computation of BMI scores revealed that more than 30% of the participants had worrisome scores (21% underweight & 13% overweight) on BMI. About 11% of the sample with moderate to extremely severe depression, 13% of sample with moderate to extremely severe anxiety and 10% of sample with moderate to extremely severe stress levels reported higher levels of loneliness. About 17% of the sample with no problematic eating behaviours reported higher levels of loneliness. Only 4% showed problematic eating behaviours with higher levels of loneliness. About 15% of the participants having normal BMI range reported higher scores for loneliness. Only 6% of participants having abnormal weight reported higher levels of loneliness. Total 13 participants were having overweight as per their BMI.

Test for Normality

It was assumed that the variables would follow a normal distribution, thus, skewness and kurtosis were computed to gain an insight about the distribution of the data. The values of skewness for all variables were within the range of ± 2 and values of kurtosis ± 7 . This suggested that the data is normally distributed and fit for path analysis (*Table 1*) (Kim et al., 2017).

Path Analysis

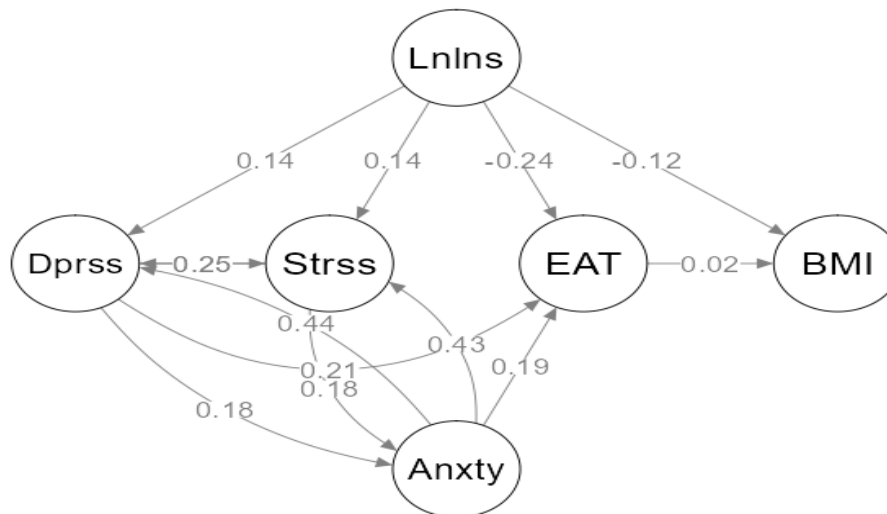
A model was hypothesised under which loneliness was considered as an exogenous variable and leaving rest of the variable i.e., depression, anxiety, stress, eating habits and BMI to be taken as endogenous variables. In Initial model, only depression, anxiety and stress were considered to be under the direct influence of loneliness. Loneliness showed positive significant relationships with stress ($\beta = 0.12$, $p < 0.05$) and depression ($\beta = 0.15$, $p < 0.05$) and negative with anxiety ($\beta = -0.09$, $p < 0.05$). Apart from some indices (CFI = 0.97 & GFI = 0.97) all other fit indices (RAMSEA = 0.163, TLI = 0.804 & $\chi^2 = 0.025$) indicated a need for a better fit model. Moderations were done in the previous model and again put forth to scrutiny for achieving a better fit. Fit Indices for improved model have been mentioned in Table 3.

Table 4: Fit indices for the adjusted model

Fit Index	Observed Values	Range for good fit
χ^2	3.18	$P > 0.05$
RMSEA	0.077	$RMSEA < 0.08$
CFI	0.994	$CFI > 0.9$
TLI	0.95	> 0.9
GFI	0.988	> 0.9

Loneliness was found to positively associated with depression [$\beta = 0.14$, $p = 0.05$], and stress [$\beta = 0.14$, $p = 0.05$]. On contrary, loneliness was found to be negatively associated with EAT [$\beta = -0.24$, $p = 0.05$] and BMI [$\beta = -0.12$, $p = 0.05$]. Other significant positive relationships were seen among eating habits and mental health. The model seems to be a good-fit (RMSEA = 0.077, CFI = 0.994, TLI = 0.957 & GFI = 0.988) (*Fig. 1*).

Fig1: Modified model and beta coefficients indicating relationships among variables (loneliness, depression, anxiety, stress, eating habits and BMI).



Lnlns: Loneliness; Dprss: Depression; Strss: Stress; EAT: Eating behaviour; BMI: Body mass index; Anxty: Anxiety

1.5. DISCUSSION

This study aimed to assess relationships among loneliness, eating habits and mental health and to see the impact of loneliness on various variables. The results of this study showed high levels of loneliness seen in 21% of the sample. This means a significant percentage of college going students have feeling of loneliness. This might be attributed to current life style of students. A significant percentage of students in this study reported ‘moderate’ to ‘extremely severe’ levels of anxiety (68%), depression (47%), and stress (37%) in conjugation with feelings of loneliness. Moeller and Seehuus, (2019) found that low levels of loneliness is associated with reduced mental health burdens among students. Also, more than 30% of the participants had worrisome scores on BMI. A very less proportion had concurrent problematic eating behaviours along with feelings of loneliness. Also, eating habits are positively correlated with depression and anxiety. This might be attributable to certain beliefs, values and social support by peer groups which can further be explained in the context of Indian culture. Alalwan et al., (2019) also found that Individuals with negative emotional states tend to eat lesser amount of food. It was found that stress is positively correlated with loneliness, depression and anxiety. This could be due to higher cortisol levels in stressful conditions often linked with loneliness and mental health issues (Campagne, 2019). Since, no study has been carried out to test these variables within the realms of a framework model, therefore, comparison of this model with previous work is currently not possible. The initial model was not suitable and fit for the data obtained, thus, a better fit model was constructed and tested by rearranging variables. The new modified model is a good fit indicating the influencing role of loneliness as an exogenous factor responsible for affected mental health status and eating habits in college students. However, other extraneous factors may also predict the likelihood of loneliness and its associated impacts.

Conclusion: In this study, we used path analysis (SEM) and found relationships among loneliness, depression, anxiety, stress, eating habits and BMI. Furthermore, the findings of this study may be utilised for determining influencing factors and trends which might be responsible for affecting physical and mental well-being in college students.

Limitations: This was a cross-sectional study in which purposive sampling was used which just gave idea about the prevailing problems pertaining to loneliness, eating behaviour and mental health among college students. Further, longitudinal studies are recommended to confirm causal paths obtained in the findings of this study.

Financial Support: Nil

Conflict of Interest: There are no conflicts of interests.

REFERENCES

- Alalwan, T. A., Hilal, S. J., Mahdi, A. M., Ahmed, M. A., & Mandeel, Q. A. (2019). Emotional eating behavior among University of Bahrain students: A cross-sectional study. *Arab Journal of Basic and Applied Sciences*, 26(1), 424–432. Scopus. <https://doi.org/10.1080/25765299.2019.1655836>
- Benner, A.D. Latino Adolescents’ Loneliness, Academic Performance, and the Buffering Nature of Friendships. *J Youth Adolescence* 40, 556–567 (2011). <https://doi.org/10.1007/s10964-010-9561-2>

- Beutel, M. E., Klein, E. M., Brähler, E., Reiner, I., Jünger, C., Michal, M., Wiltink, J., Wild, P. S., Münzel, T., Lackner, K. J., & Tibubos, A. N. (2017). Loneliness in the general population: Prevalence, determinants and relations to mental health. *BMC Psychiatry*, 17(1), 97. <https://doi.org/10.1186/s12888-017-1262-x>
- Cacioppo, J. T., & Cacioppo, S. (2018). The growing problem of loneliness. *The Lancet*, 391(10119), 426. [https://doi.org/10.1016/S0140-6736\(18\)30142-9](https://doi.org/10.1016/S0140-6736(18)30142-9)
- Campagne, D. M. (2019). Stress and perceived social isolation (loneliness). *Archives of Gerontology and Geriatrics*, 82, 192–199. <https://doi.org/10.1016/j.archger.2019.02.007>
- Chae, W., Ju, Y. J., Shin, J., Jang, S.-I., & Park, E.-C. (2018). Association between eating behaviour and diet quality: Eating alone vs. eating with others. *Nutrition Journal*, 17(1). Scopus. <https://doi.org/10.1186/s12937-018-0424-0>
- Danneel, S., Geukens, F., Maes, M., Bastin, M., Bijttebier, P., Colpin, H., Verschueren, K., & Goossens, L. (2020). Loneliness, Social Anxiety Symptoms, and Depressive Symptoms in Adolescence: Longitudinal Distinctiveness and Correlated Change. *Journal of Youth and Adolescence*, 49(11), 2246–2264. <https://doi.org/10.1007/s10964-020-01315-w>
- Danneel, S., Nelemans, S., Spithoven, A., Bastin, M., Bijttebier, P., Colpin, H., Van Den Noortgate, W., Van Leeuwen, K., Verschueren, K., & Goossens, L. (2019). Internalizing Problems in Adolescence: Linking Loneliness, Social Anxiety Symptoms, and Depressive Symptoms Over Time. *Journal of Abnormal Child Psychology*, 47(10), 1691–1705. <https://doi.org/10.1007/s10802-019-00539-0>
- Glozah, F. N., & Pevalin, D. J. (2015). Perceived social support and parental education as determinants of adolescents' physical activity and eating behaviour: A cross-sectional survey. *International Journal of Adolescent Medicine and Health*, 27(3), 253–259. <https://doi.org/10.1515/ijamh-2014-0019>
- Gong, X., & Nikitin, J. (2021). 'When i feel lonely, i'm not nice (and neither are you)': The short- and long-term relation between loneliness and reports of social behaviour. *Cognition & Emotion*, 35(5), 1029–1038. <https://doi.org/10.1080/02699931.2021.1905612>
- Hong, S. A., & Peltzer, K. (2017). Dietary behaviour, psychological well-being and mental distress among adolescents in Korea. *Child and Adolescent Psychiatry and Mental Health*, 11, 56. <https://doi.org/10.1186/s13034-017-0194-z>
- Matsui, K., Komada, Y., Okajima, I., Takaesu, Y., Kuriyama, K., & Inoue, Y. (2021). A cross-sectional study of evening hyperphagia and nocturnal ingestion: Core constituents of night eating syndrome with different background factors. *Nutrients*, 13(11). Scopus. <https://doi.org/10.3390/nu13114179>
- Moeller, R. W., & Seehuus, M. (2019). Loneliness as a mediator for college students' social skills and experiences of depression and anxiety. *Journal of Adolescence*, 73, 1–13. <https://doi.org/10.1016/j.adolescence.2019.03.006>

- Nicolaisen, M., & Thorsen, K. (2014). Who are lonely? Loneliness in different age groups (18–81 years old), using two measures of loneliness. *The International Journal of Aging and Human Development*, 78(3), 229–257. <https://doi.org/10.2190/AG.78.3.b>
- Pengpid, S., & Peltzer, K. (2020). Skipping breakfast and its association with health risk behaviour and mental health among university students in 28 countries. *Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy*, 13, 2889–2897. Scopus. <https://doi.org/10.2147/DMSO.S241670>
- Schmitt, J. P., & Kurdek, L. A. (1985). Age and gender differences in and personality correlates of loneliness in different relationships. *Journal of Personality Assessment*, 49(5), 485–496. https://doi.org/10.1207/s15327752jpa4905_5
- Streiner D. L. (2005). Finding our way: an introduction to path analysis. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 50(2), 115–122. <https://doi.org/10.1177/070674370505000207>
- Wang, J., Mann, F., Lloyd-Evans, B., Ma, R., & Johnson, S. (2018). Associations between loneliness and perceived social support and outcomes of mental health problems: A systematic review. *BMC Psychiatry*, 18(1), 156. <https://doi.org/10.1186/s12888-018-1736-5>
- Yanguas, J., Pinazo-Henandis, S., & Tarazona-Santabalbina, F. J. (2018). The complexity of loneliness. *Acta Bio-Medica: Atenei Parmensis*, 89(2), 302–314. <https://doi.org/10.23750/abm.v89i2.7404>
- Zhang, C.-L., Xu, Y.-M., & Zhong, B.-L. (2020). The association between smoking and loneliness among Chinese university freshmen. *Annals of Translational Medicine*, 8(10), 649–649. <https://doi.org/10.21037/atm-20-3523>
- The jamovi project (2021). jamovi. (Version 2.2) [Computer Software]. Retrieved from <https://www.jamovi.org>.
- Schmidt, N. & Sermat, V. (1983). Measuring loneliness in different relationships. *Journal of Personality and Social Psychology*, 44, 1038-1047.
- Simmons, C. M., Klopff, D. W., & Park, M. S. (1991). Loneliness among Korean and American university students. *Psychological Reports*, 68(3 Pt 1), 754. <https://doi.org/10.2466/pr0.1991.68.3.754>
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The eating attitudes test: psychometric features and clinical correlates. *Psychological medicine*, 12(4), 871–878. <https://doi.org/10.1017/s0033291700049163>
- Lovibond, S.H.; Lovibond, P.F. (1995). Manual for the Depression Anxiety Stress Scales (2nd ed.). Sydney: Psychology Foundation (Available from The Psychology Foundation, Room 1005 Mathews Building, University of New South Wales, NSW 2052, Australia)

- Kim, E., Cho, I., & Kim, E. J. (2017). Structural Equation Model of Smartphone Addiction Based on Adult Attachment Theory: Mediating Effects of Loneliness and Depression. *Asian Nursing Research*, 11(2), 92–97. <https://doi.org/10.1016/j.anr.2017.05.002>
- Chris Segrin, Melissa McNelis & Corey A. Pavlich (2018) Indirect Effects of Loneliness on Substance Use through Stress. *Health Communication*, 33:5, 513-518, DOI: 10.1080/10410236.2016.1278507
- Koski, M., & Naukkarinen, H. (2017). Severe obesity, emotions and eating habits: a case-control study. *BMC Obesity*, 4(1). doi: 10.1186/s40608-016-0138-9
- Pritchard, M., & Yalch, K. (2009). Relationships among loneliness, interpersonal dependency, and disordered eating in young adults. *Personality And Individual Differences*, 46(3), 341-346. doi: 10.1016/j.paid.2008.10.027

CHAPTER 4

Courage and Health Behaviour in Chronic Diseases- an Integrative Literature Review

Supriya¹ & Rajbir Singh¹

*¹ Faculty of Behavioural Sciences, Shree Guru Gobind Singh Tricentenary University,
Gurugram, India*

Abstract: Courage implies persistence in the face of hardships to overcome personal limitations for increasing the probability of pursuing a fuller life. There is renewed interest in the last few decades about the concept of courage with reference to health maintaining and health- enhancing behaviour. Environmental situations associated with fear elicit emotional responses perpetuating unhealthy behaviour. Health Belief Model (HBM) is being employed successfully across various disciplines to explain health related behaviour. Perceived barriers in HBM refer to the potential negative aspects of a particular health action acting as impediments for the recommended health behaviour. Individual perceptions of pain and adverse feelings associated with invasive nature of treatment may comprise important barriers in primary and secondary preventive health seeking initiatives. Courage may be an important mediating factor in this regard. Becoming courageous includes fully accepting reality and being productive as per circumstances. Hope helps promote and maintain courage. Spirituality and humour are no exceptions among important factors facilitating courage development. Maladaptive behaviour driven by fear perpetuates feelings of inferiority coupled with an attitude of pessimism. During the periods of serious health concerns, psychological muscle of courage may play a vital role in promoting positive health behaviour.

Keywords : courage, well-being, chronic diseases

1.1. INTRODUCTION

The concept of application of courage has travelled a long way- from known instances of noble actions during dangers or acts of valour in the battlefield to a routinely required phenomenon in our day-to-day activities. Struggles during attempts to improve quality of life associated with relief from sufferings of disease as well as invasive treatment regimens are akin to facing an enemy in battlefields. Vital courage is assumed to be an important variable to influence the success outcomes of facing these challenges. Emphasis on its relevance for normal functioning of individuals is being routinely observed. It helps to face life challenges. Human functioning is a reflection of psychological functioning. Psychological assessment without representation of the positive aspect of functioning is not only incomplete but may be misleading too. Trends of focus on exploring and extracting psychological strengths are gaining momentum not only in promoting positive mental health but to improve health outcomes during chronic and progressive diseases as well. Increasing longevity has added to the burden of chronic diseases in modern times. With advancing age, diet

and behaviour has the potential to transform genes with selective biological advantage into health hazards. Life gets paralyzed when it is subjected to sufferings of extreme fear. In the background of our fears, we may feel as if we are under the influence of debilitating forces. Courage cannot be considered simply to be hopeful. It is the capacity for moving ahead in circumstances of fear, despair or other negative emotions.

The virtue that enables people to confront fear is courage. It doesn't imply that a courageous person is fearless. Many situations evoke fear. Life threatening pandemics like COVID-19 are glaring examples. However the chronic illnesses, particularly those without efficient absolute cure, can be kept under control effectively with good compliance to treatment regimens and lifestyle modifications. These are more common and are associated with significant morbidity in the long run. Fear about the disease, its chronicity and associated morbidity may make courage play a crucial role in their long term management.

Perseverance in the face of fear and anxiety, particularly in disease or disability is a manifestation of courage. Courage is included in the positive strengths given by Seligman et al. Courage is considered scalar as its strength varies across persons. Maintaining or increasing a willingness to continue facing fears is often difficult and challenging. Disappointments and frustrations might retard its development whereas hope, self efficacy and encouragement might facilitate its growth. Furthermore, probability of manifesting problematic traits may be increased during periods of encounters with personal and environmental stressors.

This integrative review is meant to 1) explore the nature of courage investigated or the criteria under reference for patient specific courage in health related studies 2) find gaps in research about the relevance of courage in modulating health behaviour for increasing compliance to therapeutic recommendations in order to minimise the associated comorbidities.

The objective of this integrative review is to analyse the strength of evidence on the role of an individual's courage in impacting the morbidity associated with chronic diseases and the role of mediating variables in this regard.

Questions addressed in the integrative review include relevance of health behaviour modifications with reference to individual courage in patients with chronic diseases and level of evidence depicting mechanistic link of individuals courage and fear with reference to effectiveness of secondary and tertiary preventive measures in chronic diseases.

1.2. INTEGRATIVE REVIEW METHODOLOGY

A literature review is done for summarising the theoretical and empirical literature related to a particular subject with an intention to communicate the synthesised evidence with a targeted community. An integrative review includes empirical and/or theoretical literature for synthesis of a holistic understanding of the topic under investigation with emphasis on the level or strength of evidence available along with identifying gaps in knowledge about the topic. It may lead to initial preliminary conceptualization of the new perspective or framework.

1.2.1. Search Strategy

This integrative literature review is based on screening the academic manuscripts (whether peer-reviewed or not), along with available theoretical and empirical topic related academic literature.

Sampling frame: Search of the literature included: PubMed, Web of science, and Scopus databases. The MeSH terms/ keywords employed to search in the databases were: fear, courage, health behaviours, chronic diseases, compliance, patient compliance. The Boolean operators 'AND' and 'OR' were applied to combine the key words. Cross-references were also used to explore the feasibility of articles .

Eligibility criteria: The inclusion criteria employed for search parameters were: empirical as well as academic literature, irrespective of being peer-reviewed or not, studies published in English pertaining to the topic of fear/ courage and its association with treatment compliance/ patient compliance/ health behaviours were included. Exclusion criterion was the inability to obtain the full article.

Findings: The suggested areas of concern during screening and preliminary data analysis for framing the research questions for this review was relevance of health behaviour modifications with reference to individual courage/ fear in chronic diseases.

12722 results were available consisting of 4513 studies during the last five years and 1086 results in the last one year when MeSH terms 'health behaviours' AND 'fear' were the basis of search in the PubMed database. 626 randomised controlled trials, 87 meta-analyses were included in this list. Mesh terms 'health behaviours' AND 'courage' were in 214 studies in the same database. Similarly 1634 and 292 documents were observed with MeSH words 'courage' AND 'health behaviours' in databases of Web Of Science and Scopus respectively. When all three MeSH words of 'courage', 'health behaviours' and 'chronic diseases' were used, 15 results were obtained through the PubMed database.

In these documents, the terms 'fear' as well as 'courage' were in the context of role of doctors, physicians, surgeons, anesthesiologist, physiotherapists and nurses in discharging their duties towards patients; in the care and concern for the patients; in symbolising relief and protection from mortality; and COURAGE TRIAL. These documents were with reference to COVID-19, physiotherapy, rehabilitation in sports and fear of cancer progression or recurrence. The theme of patients and physicians as agents of moral courage was also observed. Fear of adverse effects of medication and individual psychosocial variables as barriers to adherence to medication in chronic diseases is among the important observations of these studies.

1.3. DISCUSSION

Courage has various meanings. Peterson and Seligman (2004) interpreted courage as a core human virtue. They conceptualised it as consisting of strengths such as valour, authenticity, enthusiasm and perseverance. Similarly, O'Byrne et al. (2000) recognised three forms of courage as physical, moral, and vital courage. *Physical courage* is the expression of physical behaviour in the pursuit of socially valued goals. *Moral courage* is the behaviour intending to enforce ethical norms at the cost of one's own social needs. *Vital courage* refers to the perseverance in the face of disease or disability even when the outcome is uncertain (e.g., a person following compliance to treatment

regimens in progressive fatal diseases). *Psychological courage* is described by Putman (1997) as the courage to face addictions, phobias, and obsessions, and to avoid self-deception and admit mistakes. This is a form of vital courage. Curtis and Kelly (2013) considered courage as an extreme expression of motivation and commitment. All these observations hint towards variations in the concept of courage. These variations have been considered to be context specific. Hence it is important to find a set of salient features of courage independent of context. Rate et al., proposed seven characteristic features of courage. These include: 1. external circumstances depicting risk, not necessarily perceived risk; 2. cognitive/ mindful deliberations about perception of risk; 3. motivation toward excellence; 4. affect/emotion such as fear and grief; 5. volition; 6. courage is in reactions in response to specific stimuli such as emotions and fear; 7. characteristic/skills.

Haase (1987) in a phenomenological study noted that initial experience of courage in adolescents takes the form of struggle for awareness of nature and impact of the illness in the background of symptoms of disease, investigations and treatment procedures for the disease. This phase is followed by resolution of the experience of the initial awareness. This resolution leads to a phase when there is transition in viewing the situation from impossible to difficult. Strategies for augmenting coping mechanisms are activated. In addition, there is initiation in pursuing other activities of life which are not related to disease. Attempts are made to resolve the situation with a sense of competence and performance through courage-facilitation strategies. Courage is not synonymous with boldness. Courage needs to be investigated as a mediating variable in coping behaviour.

What is the role of hospital ecology (in terms of health care professionals' attitude and behaviour towards patients) in facilitating patient's courage, and helping with their anxiety and fear? Emphasis on the doctor patient relationship is one of the areas with incipient exploration till date. Critical elements that are reported to help build an efficient relationship include trust and empathy. A qualitative metasynthesis reported the process of self-management during illness to be based upon paying attention to disease needs. Activating resources to live a meaningful life during the course of chronic disease is another important factor. Activities with reference to eliciting lifestyle modifications for the management of emotional influences associated with a routine of managing the morbidities of chronic disease have been reported to be significant.

The individual variations in the ability and utilisation of courage for efficient self-management and for better treatment results need to be explored. The largest financial implications for the health-delivery system is in the management of chronic diseases but despite the high prevalence and significant morbidity, psychological issues related to the successful management of chronic diseases often receive little attention. A different conceptual approach to healthcare is required. The work of Funnell and Anderson suggests that the perspective of medicine without diluting the focus on the psychosocial aspects of patient care can make the medicine yield better results. Identifying the causes and remedies for noncompliance is important in this regard. Identifying and addressing the sources for noncompliance is important in most chronic illnesses as self-management of disease is crucial to a successful outcome.

Health psychologists may be interested in paying attention to how applications of the concept of courage are related to behaviour and responses during periods of despair, and how courage enhancing strategies may help in improving health seeking and health enhancing attitude. The psychology of courage can be facilitated by other character strengths integrity, persistence and hope. Overlapping constructs of these character strengths as well as the different forms of courage suggest the need for applications of individual measures and common measure approach in empirical research.

Patient empowerment in achieving personally meaningful, realistic goals through facilitating self-directed behaviour change plays a vital role in the management of many chronic diseases. Diabetes mellitus and pyorrhoea (gum diseases) are important examples where a patient is considered as a co-therapist. Applications of courage to modulate compliance may be an important area awaiting empirical exploration. The research about the relevance of courage with reference to human behaviour is limited. Nevertheless, its behavioural implications in chronic disorders for their long term efficient management cannot be overlooked.

Twenty to thirty percent of the participants have been observed to be self reporting dental fear of moderate degree in various studies conducted in western nations. Variations in its reporting across countries are found to be non significant. Majority of the individuals report high dental fear since childhood. Association of poor oral health related problems with dental fear has been found in them. Furthermore, patient's compliance to supportive therapy has been reported to be poor or erratic. Lack of motivation is observed to be an important patient-specific factor for poor compliance in chronic diseases. Facilitating courage may be helpful to augment motivation. Personality traits and lack of virtues associated with poor compliance have not been investigated extensively and are largely unnoticed.

Osteoarthritis (OA) related pain and stiffness of joints, particularly in the knee, may result in avoidance of physiotherapy and exercise leading to deterioration of the disease and social isolation. Fear of pain has been found to explain variations in the associated psychological disability in these patients. Despair and sorrow resulting from chronic illness require attention by health care professionals. In a qualitative investigation by Sinclair et al, it was observed that realisation of realistic performance standards in the perspective of their limitations and dependence on others were some of the important factors associated with successful adaptation to rheumatoid arthritis comorbidities. They reported that the patients adapted with the successful management of their daily activities through a revision in their priorities and criteria of self worth. A change in their perspective could minimise threats from chronic diseases. Social support, past experience based confidence and inspiration from their heroes were some of the sources of encouragement to augment courage during this period. In a study by Asadzandi, a model was designed for translating negative emotions to positive emotions: fear associated emotions to emotions of confidence. Problem-centered and emotion-centered cognition was changed to an approach with positive health behaviours when disease was introduced as a challenge. It was accomplished by cultivation of optimism and courage through spiritual process. Patients adopted healthy behaviour when they improved correspondence with the self and significant others with development of commitment, control and motivation. Spiritual means to facilitate courage in such situations require self-based and family-based support.

Traditionally, focus of research in cardiovascular diseases (CVD) has been on proximate factors viz. Diabetes and dyslipidemia. Recently there is interest to explore factors related to chronic stresses as a risk for CVD. General adaptation syndrome, an important consequence and manifestation of severe stress, is often associated with poor health. It is not always the presence of stressor in chronic diseases which affects the quality of life; even its recollection serve the identical deleterious effects. Behavioural and emotional flexibility during challenging or difficult times of chronic disease is reflected through resilience. Interestingly, research hints towards courage as an important positive personal resource which can be cultivated and harvested to enhance dynamics of resilience favourably. The other linked personal resources are optimism, self efficacy and hope. John Henryism is an example of active coping during extreme chronic adversities. It may be detrimental to health in the presence of chronic stressors. Effortful coping at higher levels is not

harmful as such but the presence of chronic insurmountable social stressors may be an important barrier in this direction. Hence relevance of family and social support may become even more important during courage facilitating strategies to face and manage painful morbidities associated with chronic diseases.

1.4. CONCLUSION

Theoretical concerns impede the applications of an important positive psychological intervention in the form of courage in health enhancing and health maintaining behaviour. Role of applications of vital courage in struggles with psychological challenges during periods of deviation from health, particularly during chronic diseases need to be explored for efficient management.

REFERENCES

- Asadzandi M. (2020). An Islamic Religious Spiritual Health Training Model for Patients. *Journal of Religion and Health*, 59 (1), 173–187. <https://doi.org/10.1007/s10943-018-0709-9>
- Astedt-Kuki P, Heikkinen R. (1994) Two approaches to the study of experiences of health and old age: the thematic interview and the narrative method. *J Adv Nursing*; 26:418–21
- Baruffol, E., Gisle, L., & Corten, P. (1995). Life satisfaction as a mediator between distressing events and neurotic impairment in a general population. *Acta Psychiatrica Scandinavica*, 92, 56-62. doi:10.1111/j.1600-0447.1995.tb09543.x
- Bratt, A., Gralberg, I. M., Svensson, I., & Rusner, M. (2020). Gaining the courage to see and accept oneself: Group-based compassion-focussed therapy as experienced by adolescent girls. *Clinical child psychology and psychiatry*, 25(4), 909–921. <https://doi.org/10.1177/1359104520931583>
- Cianetti, S., Lombardo, G., Lupatelli, E., Pagano, S., Abraha, I., Montedori, A., Caruso, S., Gatto, R., De Giorgio, S., & Salvato, R. (2017). Dental fear/anxiety among children and adolescents. A systematic review. *European journal of paediatric dentistry*, 18(2), 121–130. <https://doi.org/10.23804/ejpd.2017.18.02.07>
- Cox, D., Hallam, R., O'Connor, K., & Rachman, S. (1983). An experimental analysis of fearlessness and courage. *British journal of psychology*, 74 (1), 107–117. <https://doi.org/10.1111/j.2044-8295.1983.tb01847.x>
- Cigrovski, V., Radman, I., Konter, E., Očić, M., & Ružić, L. (2018). Sport Courage, Worry and Fear in Relation to Success of Alpine Ski Learning. *Sports (Basel, Switzerland)*, 6(3), 96. <https://doi.org/10.3390/sports6030096>
- Dahlsgaard, Katherine; Peterson, Christopher; Seligman, Martin E. P. (2005). *Shared Virtue: The Convergence of Valued Human Strengths Across Culture and History.. Review of General Psychology*, 9(3), 203–213. doi:10.1037/1089-2680.9.3.203

- Donohue-Porter P. (2013). Nursing's role in courage development in patients facing complications of diabetes. *Journal of holistic nursing : official journal of the American Holistic Nurses' Association*, 31(1), 49–61. <https://doi.org/10.1177/0898010112461975>
- Eisenberg L. (1999). Does social medicine still matter in an era of molecular medicine?. *Journal of urban health : bulletin of the New York Academy of Medicine*, 76(2), 164–175. <https://doi.org/10.1007/BF02344673>
- Ellis, A. (1995). Rational emotive behavior therapy. In R. J. Corsini & D. Wedding (Eds.) *Current psychotherapies* (5th ed., pp. 162-196). Itasca, IL: Peacock.
- Ellis, A. (1998). How to control your anxiety before it controls you. Secaucus, NJ: Carol Publishing Group.
- Finfgeld, D. L. (1992). Courage in the chronically ill elderly: A grounded theory study (Doctoral dissertation, University of Texas at Austin). *Dissertation Abstracts International*, 53, 1783B
- Finfgeld D. L. (1995). Becoming and being courageous in the chronically ill elderly. *Issues in mental health nursing*, 16(1), 1–11. <https://doi.org/10.3109/01612849509042959>
- Finfgeld D. L. (1998). Courage in middle-aged adults with long-term health concerns. *The Canadian journal of nursing research = Revue Canadienne de recherche en sciences infirmieres*, 30(1), 153–169.
- Finfgeld, D. L. (1999). Courage as a process of pushing beyond the struggle. *Qualitative Health Research*, 9(6), 803–814. <https://doi.org/10.1177/104973299129122298>
- Finfgeld, D. L. (in press). Courage in young adults with long-term health concerns. In J. F. Miller (Ed.), *Coping with chronic illness: Overcoming powerlessness* (pp. 145-164). Philadelphia: F. A. Davis.
- Frankl, V. (1984). *Man's search for meaning: An introduction of logotherapy*. New York: Touchstone.
- Goud, N. H. (2005). Courage: its nature and development. *The Journal of Humanistic Counseling, Education and Development*, 44, 102–116. <https://doi.org/10.1002/j.2164-490x.2005.tb00060.x> CrossRefGoogleScholar
- Gruber C. (2011). The psychology of courage: modern research on an ancient virtue. *Integrative psychological & behavioral science*, 45(2), 272–279. <https://doi.org/10.1007/s12124-011-9155-x>
- Haase, J. E. (1985). The components of courage in chronically ill adolescents: A phenomenological study (Doctoral dissertation, Texas Woman's University). *Dissertation Abstracts International*, 46, 1869B.
- Haase, J. E. (1987). Components of courage in chronically ill adolescents: a Phenomenological study. *ANS .Advances in nursing science*, 9(2), 64–80. <https://doi.org/10.1097/00012272-198701000-00010>
- Hakeberg, M., Berggren, U., & Carlsson, S. G. (1992). Prevalence of dental anxiety in an adult population in a major urban area in Sweden. *Community dentistry and oral epidemiology*, 20(2), 97–101. <https://doi.org/10.1111/j.1600-0528.1992.tb00686.x>

- Hamric, A. B., Arras, J. D., & Mohrmann, M. E. (2015). Must we be courageous?. *The Hastings Center report*, 45(3), 33–40. <https://doi.org/10.1002/hast.449>
- Hannah, S. T., Sweeney, P. J., & Lester, P. B. (2010). The courageous mind-set: A dynamic personality system approach to courage. In C. L. S. Pury & S. J. Lopez (Eds.), *The psychology of courage: Modern research on an ancient virtue* (pp. 125–148). American Psychological Association. <https://doi.org/10.1037/12168-007>
- Hollister, M. C., & Anema, M. G. Health behavior models and oral health: A review. *Journal of Dental Hygiene*. (2004), 78(3), 6.
- Jarosz, J. (2017). An integrative literature review on the impact of life coaching on courage, fear and anxiety. *International Journal of Evidence Based Coaching and Mentoring*, 15(2), 86–110.
- Johnson, D. (2000). *Reaching out: Interpersonal effectiveness and self-actualization*. Boston: Allyn & Bacon.
- Joseph, S., & Linley, P. A. (2005). Positive adjustment to threatening events: An organismic valuing theory of growth through adversity. *Review of General Psychology*, 9(3), 262–280. doi: 10.1037/1089-2680.9.3.262
- Kleinknecht, R. A., Thorndike, R. M., McGlynn F. D., and Harkavy J. , Factor analysis of the dental fear survey with cross validation, *The Journal of the American Dental Association*, vol. 108, no. 1, pp. 59–61, 1984.
- Kumar, H., Behura, S. S., Ramachandra, S., Nishat, R., Dash, K. C., & Mohiddin, G. (2017) Oral Health Knowledge, Attitude, and Practices Among Dental and Medical Students in Eastern India – A Comparative Study. *Journal of International Society of Preventive and Community Dentistry*, 7(1), 58–63. https://doi.org/10.4103/jispcd.JISPCD_30_17
- Lester, P. B., Vogelgesang, G. R., Hannah, S. T., & Kimmey, T., Jr. (2010). Developing courage in followers: Theoretical and applied perspectives. In C. L. S. Pury & S. J. Lopez (Eds.), *The psychology of courage: Modern research on an ancient virtue* (pp. 187–207). American Psychological Association. <https://doi.org/10.1037/12168-010>
- Liebenhagen, A., & Forsberg, A. (2013). The courage to surrender--placing one's life in the hands of the other. *Journal of perianesthesia nursing : official journal of the American Society of PeriAnesthesia Nurses*, 28(5), 271–282. <https://doi.org/10.1016/j.jopan.2012.12.003>
- Locker, D., Clarke, M., & Payne, B. (2000). Self-perceived oral health status, psychological well-being, and life satisfaction in an older adult population. *Journal of dental research*, 79(4), 970–975. <https://doi.org/10.1177/00220345000790041301>
- Lopez, S. J., O'Byrne, K. K., & Petersen, S. (2003). Profiling courage. In S. J. Lopez & C. R. Snyder (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp.185–197). American Psychological Association. . <https://doi.org/10.1037/10612-012>
- Lopez, S. J., Rasmussen, H. N., Skorupski, W. P., Koetting, K., Petersen, S. E., & Yang, Y.-T. (2010). Folk conceptualizations of courage. In C. L. S. Pury & S. J. Lopez (Eds.), *The psychology of courage: Modern research on an ancient virtue* (pp. 23–45). American Psychological Association. <https://doi.org/10.1037/12168-002>

- Matt C. Howard, M.C., & Alipour, K.K (2014). Does the courage measure really measure courage? A theoretical and empirical evaluation. *The Journal of Positive Psychology*, 9(5), 449-459. <https://doi.org/10.1080/17439760.2014.910828>
- May,D., Luth, M., & Schworer,C. (2014).The influence of business ethics education on moral efficacy,moral meaningfulness, and moral courage: A quasi-experimental study. *Journal of Business Ethics*, 124(1), 67–80. <http://dx.doi.org/10.1007/s10551-013- 1860-6>
- McGurk, D., & Castro, C.A. (2010). Courage in combat. In C. L. S. Pury & S. J. Lopez (Eds.), *The psychology of courage: Modern research on an ancient virtue* (pp. 167–185). Washington,DC: American Psychological Association. <http://dx.doi.org/10.1037/12168-009>
- McMillan, T. M., & Rachman, S. J. (1987). Fearlessness and courage: A laboratory study of paratrooper veterans of the Falklands War. *British Journal of Psychology*, 78(3), 375– 383.
- McMillan, T. M., & Rachman, S. J. (1988). Fearlessness and courage in paratroopers undergoing training. *Personality and Individual Differences*, 9(2), 373-378. [https://doi.org/10.1016/0191-8869\(88\)90100-6](https://doi.org/10.1016/0191-8869(88)90100-6)
- Milgrom, P., Fiset, L., Melnick, S., & Weinstein, P. (1988). The prevalence and practice management consequences of dental fear in a major US city. *Journal of the American Dental Association* (1939), 116(6), 641–647. <https://doi.org/10.14219/jada.archive.1988.0030>
- Moore, R., Birn, H., Kirkegaard, E., Brødsgaard, I., & Scheutz, F. (1993). Prevalence and characteristics of dental anxiety in Danish adults. *Community dentistry and oral epidemiology*, 21(5), 292–296. <https://doi.org/10.1111/j.1600-0528.1993.tb00777.x>
- Moore, R., Brødsgaard, I., & Birn, H. (1991). Manifestations, acquisition and diagnostic categories of dental fear in a self-referred population. *Behaviour research and therapy*, 29(1), 51–60. [https://doi.org/10.1016/s0005-7967\(09\)80007-7](https://doi.org/10.1016/s0005-7967(09)80007-7)
- Morris, R. J. (1986). Fear reduction methods. In F. H. Kanfer & A. P. Goldstein (Eds.), *Helping people change* (pp. 145-190). New York: Pergamon Press.
- Muris, P. (2009). Fear and Courage in Children: Two Sides of the Same Coin?. *Journal of child and family studies*, 18(4), 486–490. <https://doi.org/10.1007/s10826-009-9271-0>
- Norton, P. J., & Weiss, B. J. (2009). The role of courage on behavioral approach in a fear- eliciting situation: a proof-of-concept pilot study. *Journal of anxiety disorders*, 23(2), 212–217. <https://doi.org/10.1016/j.janxdis.2008.07.002>
- Nydell Helkimo, A., Rolander, B., & Koch, G. (2022). Dental fear in school children and young adults attending public dental health care: prevalence and relationship to gender, oral disease and dental treatment; trends over 40 years. *BMC oral health*, 22(1), 146. <https://doi.org/10.1186/s12903-022-02166-6>
- O'Connor, K., Hallam, R., & Rachman, S. (1985). Fearlessness and courage: A replication experiment. *British Journal of Psychology*, 76(2), 187-197. <https://doi.org/10.1111/j.2044-8295.1985.tb01942.x>
- Painter, J. E., Borba, C. P., Hynes, M., Mays, D., & Glanz, K. (2008). The use of theory in health behavior research from 2000 to 2005: a systematic review. *Annals of behavioral medicine : a publication of the Society of Behavioral Medicine*, 35(3), 358–362. <https://doi.org/10.1007/s12160-008-9042-y>

- Pearson, E. S. (2011). The 'how-to' of health behaviour change brought to life: a theoretical analysis of the Co-Active coaching model and its underpinnings in self-determination theory. *Coaching: An International Journal of Theory, Research and Practice*, 4(2), 89-103. doi: 10.1080/17521882.2011.598461
- Peterson, C., Seligman, M. E. P. (2004a). *Character Strengths and Virtues: A Handbook and Classification*. New York, NY: Oxford University Press and Washington, DC: American Psychological Association.
- Peterson, C., & Seligman, M. E. P. (2004b). Introduction to a "Manual of the Sanities" In C. Peterson & M. E. P. Seligman, *Character strengths and virtues: A handbook and classification* (pp. 3–32). American Psychological Association; Oxford University Press.
- Pury, Cynthia L. S.; Kowalski, Robin M.; Spearman, Jana (2007). *Distinctions between general and personal courage*. *The Journal of Positive Psychology*, 2(2), 99–114. <http://dx.doi.org/10.1080/17439760701237962>
- Putman, D. (1997). Psychological courage. *Philosophy, Psychiatry, & Psychology*, 4(1), 1– 11. <https://doi.org/10.1353/ppp.1997.0008>
- Putman, D. (2004). *Psychological Courage*. Lanham, MD: University Press of America. Putman, D. (2010). Philosophical roots of the concept of courage. In C. L. S. Pury & S. J. Lopez (Eds.), *The psychology of courage: Modern research on an ancient virtue* (pp. 9– 22). American Psychological Association. <https://doi.org/10.1037/12168-001>
- Rachman, S. (1978). Human fears: A three systems analysis. *Scandinavian Journal of Behaviour Therapy*, 7(4), 237–245. <https://doi.org/10.1080/16506077809456104>
- Rachman, S. (1983). Part I — Overview: Fearlessness and courage in bomb-disposal operators *Advances in Behaviour Research and Therapy*, 4 (3), 1983,99-104. [https://doi.org/10.1016/0146-6402\(83\)90020-6](https://doi.org/10.1016/0146-6402(83)90020-6)
- Rachman, S. J. (2004). Fear and courage: A psychological perspective. *Social Research*, 71, 149-176. Retrieved from http://www.jstor.org/stable/40971664?seq=1#page_scan_tab_contents
- Rate, C.R., Clarke, J.A., Lindsay, D.R., & Sternberg, R.J. (2007). Implicit theories of courage. *Journal of Positive Psychology*, 2, 80-98. doi: 10.1080/17439760701228755
- Renz, A. N., & Newton, J. T. (2009). Changing the behavior of patients with periodontitis. *Periodontology 2000*, 51(1), 252.e68.
- Rice, F. P. (1998). Human development: A life-span approach. Upper Saddle River, NJ: Prentice Hall. Riessman CK. (1990) Strategic uses of narrative in the presentation of self and illness: a research note. *Soc Sci Med*;30:1195–200
- Rosenstock IM. The Health Belief Model and Preventive Health Behavior. *Health Education Monographs*. 1974;2(4):354-386. doi:10.1177/109019817400200405
- Seligman, M. E. P., Steen, T. A., Park, N. and Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60(5), 410-421. doi: 10.1037/0003-066X.60.5.410
- Sheiham, A., & Oral Health. (2005). General health and quality of life. *Boll World Health Organ*, 83(9), 644.

- Shelp, E. E. (1984). Courage: A neglected virtue in the patient–physician relationship. *Social Science & Medicine*, 18(4), 351–360. [https://doi.org/10.1016/0277-9536\(84\)90125-4](https://doi.org/10.1016/0277-9536(84)90125-4)
- Sinclair, V. G., & Blackburn, D. S. (2008). Adaptive coping with rheumatoid arthritis: the transforming nature of response shift. *Chronic illness*, 4(3), 219–230. <https://doi.org/10.1177/1742395308095356>
- Szgun, G. (1992). Age-related changes in children's understanding of courage. *The Journal of Genetic Psychology: Research and Theory on Human Development*, 153(4), 405– 420. <https://doi.org/10.1080/00221325.1992.10753736>
- Tavares de Souza, M., Dias Silva, M., & de Carvelho, R. (2010). Integrative review: what is it? How to do it? *Einstein*, 8(1), 102-6. Retrieved from <http://apps.einstein.br/revista/arquivos/PDF/1134-Einsteinv8n1p102-106.pdf>
- Timmers, I., Quaedflieg, C., Hsu, C., Heathcote, L. C., Rovnaghi, C. R., & Simons, L. E. (2019). The interaction between stress and chronic pain through the lens of threat learning. *Neuroscience and biobehavioral reviews*, 107, 641–655. <https://doi.org/10.1016/j.neubiorev.2019.10.007>
- Torraco, R.J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, 4(3), 356-367. doi: 10.1177/1534484305278283
- Wisløff, T. F., Vassend, O., & Asmyhr, O. (1995). Dental anxiety, utilisation of dental services, and DMFS status in Norwegian military recruits. *Community dental health*, 12(2), 100–103.
- Woodard, C. R. (2004). Hardiness and the Concept of Courage. *Consulting Psychology Journal: Practice and Research*, 56(3), 173–185. <https://doi.org/10.1037/1065-9293.56.3.173>
- Woodard, C. R., & Pury, C. L. S. (2007). The construct of courage: Categorization and measurement. *Consulting Psychology Journal: Practice and Research*, 59 135– 147. <https://doi.org/10.1037/1065-9293.59.2.135>
- Zilioli, S., Gómez, J. M., Jiang, Y., & Rodriguez-Stanley, J. (2022). Childhood Socioeconomic Status and Cardiometabolic Health: A Test of the John Henryism Hypothesis in African American Older Adults. *The journals of gerontology. Series A, Biological sciences and medical sciences*, 77(2), e56–e64. <https://doi.org/10.1093/gerona/glab280>

CHAPTER 5

Role of Parenting Stimulation in Early Childhood to Mitigate Symptoms of Neurodevelopmental Disorders

Waheeda Khan ¹ & Satinder Kaur Walia¹

¹*Faculty of Behavioural Sciences, Shree Guru Gobind Singh Tricentenary University,
Gurugram, India*

Abstract: This review discusses the role of early identification and early intervention in neurodevelopmental disorders in light of brain development during critical periods. Early developmental stimulation, like positive parent-child interactions, can act as a protective factor and minimize the effects of neurodevelopmental disorders over early childhood. The human brain is most plastic during the first three years of life; therefore, early parental stimulation in positive parenting interventions promotes healthy child development and positive developmental trajectories. Parents play an essential role in a child's life and are the child's immediate environment; therefore, early interventions in the form of multi-sensory and cognitive stimulation can enhance brain structures and function. The daily interactions during caregiving activities and play, especially in the early years of life, can lead to higher developmental activity meaning high neuroplasticity and positive developmental outcomes. Children at biological and psychosocial risks can benefit from an environment where caregiving supports cognitive and social-emotional development. The benefits of a nurturing environment will support healthy brain development and enable these individuals to reach their developmental potential. Early interventions not only mitigate neurodevelopmental disabilities but also contributes to the sustainability of improved growth for the coming generations.

Keywords: *Parenting Interventions, Neurodevelopmental Disorders, Critical Period, Early Intervention*

1.1. INTRODUCTION

Parents and caregivers can impact a child's health and well-being in a significant manner. They fundamentally shape children's lives by providing positive experiences that can majorly impact their cognitive, academic, and social-emotional development (Hannah Ulferts, OECD 2020). Parenting can bring joy and pride with happiness, along with challenges and overwhelming responsibilities. Factors that promote positive parenting include a stable, supportive home with caring, capable and involved parents with access to finances that can support secure housing, high-quality education for their children, and a good and affordable health system. Other factors include safe play, recreation facilities, extended family, and social support (Sanders and Turner, 2018).

Demands on parents are changing with changing times that include more presence of women in the workforce, family mobility, and the sources of how to parent from elders or extended family to seeking information from digital media. Since parents differ considerably in their knowledge of child development and how to use effective parenting practices, parenting education is closely linked to parenting support. As per the research, the family patterns that influence child

developmental outcomes include parent-child interactions and activities, early care and education, children's social networks, and health behaviors that primarily include safety and protective measures (Zepeda, Varela, and Morales, 2004).

Parenting can be influenced by various factors of child, parent, and family characteristics. Positive parenting can positively affect child development and well-being. In contrast, negative parenting behaviors like inconsistent, neglectful, and harsh parenting can lead to negative impacts like problems in a child's physical, mental, and behaviors. Most research on parenting has focused on typically developing children, whereas relatively less research is known on parenting children with various health conditions like neurodevelopmental disorders (NDDs). The parenting of children with NDD can be very challenging as the context for these children differs from that of healthy children. The lives of children with chronic health conditions are faced with unique circumstances.

Neurodevelopmental disorders (NDDs) emerge in early childhood. They are impairment of the growth and development of the central nervous system that impacts various domains of functioning like physical, social-emotional, cognitive, communication, and adaptive skills. They also affect information processing and self-regulation. NDDs include intellectual deficits, attention deficit hyperactivity disorder, autism spectrum disorder, cerebral palsy, and communication disorders. As per the American Academy of Pediatrics clinical report (2015), behavioral and developmental disorders are the top 5 conditions in pediatrics (ages 2-5 years) that are chronic and causes functional impairments. The data on India's prevalence of neurodevelopmental disorders is inconsistent. However, the improvements in the medical system leading to more infant and child survival have led to a higher community prevalence of neurodevelopmental disorders and disabilities (Gaikwad & Lagana, 2020).

Early childhood development can vary significantly due to inequalities in the adopted child development practices. The crucial factors of positive outcomes include the engagement of caretakers in specific activities to provide cognitive stimulation with responsive and sensitive care. Other resources like access to children's books, toys, and learning materials and avoidance of harsh punishments are crucial for child development, irrespective of their setting. In their study, Tran, Luchters, and Fisher (2016) concluded that psychosocial factors, including quality of care for children at home and early childhood education, are important determinants of positive child development. The child's early care at home is positively associated with early childhood development scores worldwide.

Early life experiences influence human brain development and play an essential role in early childhood development, especially in humans' cognitive and emotional domains. The adverse early childhood experiences lead to more behavior problems and psychopathology in later years. Luby, Baram, Rogers, and Barch (2020) studied whether early-life experiences influence human brain development and impact cognitive and emotional outcomes. They also tried to look at sensitive periods by understanding the timing and nature of early childhood experiences and their influence on brain organization as a crucial factor for using critical environmental factors to enhance brain development. They studied and reviewed various studies on humans and animals that highlighted the importance of sensitive periods and the importance of early life experiences. The specific brain regions and the timing are highlighted as two factors leading to brain circuits that lead to cognitive and emotional function. Children can be particularly vulnerable to environmental factors like adversity or receptivity to enhancement.

Brain plasticity is at its peak in humans before the age of 3 years, when most functional brain networks emerge. Adverse childhood experiences like abuse, neglect, deprivation, poverty,

unpredictable parental care, and an unstimulated environment have been associated with a high risk for poor neurodevelopmental outcomes and psychiatric disorders in later years. Although the brain is dynamically plastic across the lifespan, the windows of early life are when it's peaking. Neural circuits during critical periods require intrinsic temporal alignment and environmental input for normal brain development. Most primary sensory areas like auditory, visual, and somatosensory processing in mammals are significantly impacted during critical periods of early years of life. Research has shown that the unification of multi-sensory information is disrupted in many individuals with ASD. Language processing requires the integration of auditory, visual, tactile, and motor information, and it's vulnerable in many children with developmental disorders. Therefore many early experiences during the critical development period within and between the various brain regions support the developing individual to interact successfully with the world around them (Reh, Dias, Nelson, Kaufer, Werker, Kold, Levine & Hensch, 2019).

Early experiences like the quality of child and caregiver relationships are critical to shaping the structure and function of the brain. Most research has documented the vital link between early adverse rearing practices and mental health disorders. Callaghan and Tottenham (2015) examined the Neuroenvironmental loop that contributes to the formation of stable emotional regulation circuits in the brain. According to them, the neuroenvironmental loop includes early parental care, the central nervous system, and behavior. Risk factors are often studied, but little or no attention has been given to the protective factors that can be useful to those at risk, whether high or low. There need to be guidelines regarding which environmental factors can enrich neurodevelopment that can further elaborate on the nature and timing of exposures during critical or sensitive periods like the first 3 or 5 years of human life (Luby, Baram, Rogers, and Barch, 2020).

Scattolin, Resegue, and Rosario (2021) reviewed the literature to study the impact of the environment on children's mental, behavior, and neurodevelopmental disorders. According to the research, children need five components that are essentially interrelated and indivisible to reach their full potential. These principles are good health and nutrition, safety and security, responsive caregiving, and learning opportunities. Nurturing the environment can reduce the negative impacts of social isolation on brain structure and function, improving children's health and development. The interconnection between early childhood experience and individual responses are foundations for all future developmental processes. The critical periods in development are the well-defined window of opportunity during which the exposure and stimulation by parents can cause irreversible positive changes in brain functionality. The balance between protective and risk factors leads to a healthy neurodevelopmental pathway. In contrast, the delays or deviations of these neurodevelopmental pathways can have much more significant chances of developing neurodevelopmental disorders.

Early identification and intervention have their basis in neuroscience principles that the first years of life are the period of maximal brain plasticity. Modifications during this period are most effective and lead to positive outcomes that can help mitigate long-term developmental disorders. Understanding red flags during early child development can lead to early identification, which subsequently will allow the possibility of early intervention. The importance of early intervention from a toddler's age is ambiguous. However, some guidelines suggest how one can optimize this period to achieve long-term outcomes. The naturalistic developmental behavior interventions approach has its basis in several underlying principles that indicate how to support social interactions and play and encourage child-initiated communication within the natural environments. This approach's positive outcomes have improved IQ, language, and communication (Elsabbagh, 2020).

Neurodevelopmental disorders' prevalence and incidence rate has increased manifolds in the last few decades. Therefore there is a significant need for early identification and early interventions. As part of early interventions, there is a need for assistance to empower parents and teach them how to enhance their skills to provide early cognitive stimulation so that they can make the best use of critical periods. In their study, Jang, Han, Bang, and Ahn (2022) found that socio drama- based communication enhancement programs showed positive outcomes and may be an effective intervention strategy for parents of children with neurodevelopmental disorders. The sociodrama program showed reduced parenting burden and improved parent-child communication and parenting competence. The study emphasized that continuous use of parenting interventions improves expressive language and increases attachment behaviors or children with neurodevelopmental disabilities.

Many studies on parenting interventions from early years have shown positive results. Parenting interventions for children with neurodevelopmental disorders include skills training, parenting education, and coaching parents with the knowledge of interventions to improve their parenting competence. It also reduces parental stress and mitigates the caregiving burden. The parent-child relationships can be strengthened by communication as a tool as it builds and maintains relationships. Some studies show that parents of children with developmental delays struggle to interact with their children. Parent-training programs should focus on enhancing parent-child interaction and communication skills as it has positive implications for children's development.

Implementing early intervention practices in family settings is an ongoing process and debatable, but it has shown promising results. The family integrated care of medically fragile or preterm infants admitted to NICU (Neonatal Intensive Care Unit) showed better outcomes when parental involvement was part of the process than in most advanced medical care (Hadders-Algra, 2021). Studies have shown that children with a high risk of neurological dysfunction in the neonatal period can have typical neurodevelopmental outcomes in later years if interventions begin early. In the first two years postnatally, the brain shows high developmental activity, meaning high neuroplasticity, suggesting that early intervention practices during this period can improve a child's developmental outcomes. With the help of a stimulating environment, the temporary structures of the brain lead to permanent circuitries that induce changes in the infant's neurodevelopmental performance. In their longitudinal research, Siller, Hutman & Singman (2012) found that responsive parental behaviors reliably predict language gains in children with an autism spectrum disorder. The study showed that children with baseline language skills below 12 months benefited from Focused Playtime Interventions (FPI). The results showed a significant impact of FPI on responsive parental behaviors. The study mentioned that children with advanced language skills required intervention strategies beyond FPI to develop responsive communication. Hadders-Algra (2021), in a review article, stressed that families play the most crucial role in early intervention. The review summary showed the effectiveness of early interventions in medically fragile neonates or infants with low to moderate risk of neurodevelopmental disorders like CP (cerebral palsy) or ASD (autism spectrum disorder).

The review by Provenzi, Giusti, Caglia, Rosa, Mascheroin, and Montirosso (2020) showed that VFI programs (Video-Feedback Interventions) promote positive parental behaviors like sensitivity and contingent caregiving. VFI consists of various procedures that promote positive parenting and can be used as stand-alone interventions or with other treatment programs at home or in hospital settings. It enhances interactive features like turn- taking and joint attention in children. The authors emphasized that future research should be done to understand the

effectiveness of VFI programs through randomized designed clinical trials. They also highlighted that the VFI could not be used in a one size fits all approach and should be implemented carefully. To make VFI more effective, clinicians should be well trained and have good background and understanding in the field of child development.

Early intervention practices are effective, especially in young children with or at risk of developmental disorders. The research has shown strong evidence that families and primary caretakers are a vital part of early interventions as they are the essential environment for children. Family members can impact child development by indulging in daily interactions during caregiving activities and play. The recent challenges parents face are distracted parenting and the use of multimedia screens for children below the age of 2 years.

Modern parents have started using media to care for and calm their children. The research shows that children below the age of 2 learn primarily from their caregivers and are unlikely to learn from the TV at this age. After two years, the responsive media and age-appropriate content can impact early language and literacy skills. However, heavy screen exposure (more than 2 hours a day by infants or toddlers) can negatively impact their language and social- emotional skills. Consequently, parents and children lose opportunities to form attachments and social engagements.

The impact of early interventions depends on the early detection of developmental disorders, which can be challenging. Beginning-of-life circumstances can be very different from one individual to another, and therefore only resource is to observe behavior in daily life or clinical settings. The use of developmental milestones knowledge is helpful but has limited predicted value; therefore, early screening tools can be used to determine the presence or levels of high-risk children. The early intervention starts by guiding the families to promote activities involving child and family participation. There is ample evidence that early intervention in infants at low to moderate risk of CP and intellectual disability successfully promotes positive infant and family outcomes. However, at present, little evidence supports the effect of early intervention in children with a high or very high risk of neurodevelopmental disorders. The interventions must be tailored to the family, the child, and their interactions to be most successful (Hadders-Algra, 2021).

In their study, Cates, Dreyer, Berkule, White, Arevalo, and Mendelsohn (2012) provided evidence that cognitive stimulation in early infancy results in higher communicative capacities in infants. The cognitive stimulation increases the ability of eye gaze following, emotional expression, and the capacity to make bids for others' attention. The findings suggested that early solid associations of cognitive stimulation by the caretakers in the home setting lead to higher infant communication skills. These findings are important as children from low-income backgrounds are at greater risk for poor school readiness skills. Therefore simple parent-child interactions targeted in early infancy can produce positive developmental trajectories.

Cognitive development can be facilitated by parent-child interactions, including activities and materials promoting age-appropriate language and problem-solving skills. The protective factors that enhance social-emotional development include positive caregiver-child interactions such as caregiver positive emotionality, sensitivity, and responsiveness toward the child. It also includes avoidance of any abusive and hostile behaviors like shouting and physical punishment. Since protective factors tend to reduce adverse consequences of risk factors, more research and guidelines must address how we can promote early child development.

1.2. CONCLUSION

Child development and an individual's biological, environmental, and social characteristics shape development over time, and outcomes vary across individuals. Enhancing the knowledge of risk factors and early screening that facilitates the identification of at-risk individuals at earlier periods of development can provide access to early interventions. There is strong evidence that simple, early stimulation by primary caretakers in the home setting during the critical periods of child development can enhance developmental skills and alter brain and neural trajectories. The first three years are considered the most crucial and sensitive period for child development in humans because of brain plasticity. The higher neurodevelopmental activities like cognitive stimulation by parents by interacting with their children in the early years can enhance parent-child socialization and increase their abilities to have joint attention and better social-emotional skills. Simple activities like reading aloud and play can enhance social-emotional development. The cognition, communication, and language skills get enhanced by early stimulation and, therefore, better school readiness skills. There is a need to support positive parenting principles in the early years to promote healthy child development. These interventions are simple and easy to follow to give sustainable results by mitigating prominent features of neurodevelopmental disorders.

REFERENCES:

- Callaghan, B., & Tottenham, N. (2015). The Neuro-Environmental Loop of Plasticity: A Cross-Species Analysis of Parental Effects on Emotion Circuitry Development Following Typical and Adverse Caregiving. *Neuropsychopharmacology*, 41(1), 163-176. <https://doi.org/10.1038/npp.2015.204>
- Cates, C., Dreyer, B., Berkule, S., White, L., Arevalo, J., & Mendelsohn, A. (2012). Infant Communication and Subsequent Language Development in Children from Low-Income Families. *Journal Of Developmental & Behavioral Pediatrics*, 33(7), 577-585. <https://doi.org/10.1097/dbp.0b013e318264c10f>
- Elsabbagh, M. (2020). Linking risk factors and outcomes in autism spectrum disorder: is there evidence for resilience?. *BMJ*, 16880. <https://doi.org/10.1136/bmj.16880>
- Files.eric.ed.gov. (2022). Retrieved 14 September 2022, from <https://files.eric.ed.gov/fulltext/ED496882.pdf>
- Gaikwad, L., & Lagala, S. (2020). Prevalence and correlates of neurodevelopmental disorders among children in India: a narrative review. *International Journal Of Contemporary Pediatrics*, 8(1), 200. <https://doi.org/10.18203/2349-3291.ijcp20205438>
- Hadders-Algra, M. (2021). Early Diagnostics and Early Intervention in Neurodevelopmental Disorders—Age-Dependent Challenges and Opportunities. *Journal Of Clinical Medicine*, 10(4), 861. <https://doi.org/10.3390/jcm10040861>

- Hadders-Algra, M. Early intervention in the neonatal period. In *Early Detection and Early Intervention in Developmental Disorders— From Neuroscience to Participation*; Hadders-Algra, M., Ed.; Mac Keith Press: London, UK, 2021; pp. 185–197.
- Jang, S., Han, J., Bang, M., & Ahn, J. (2022). Effects of a Sociodrama-based Communication Enhancement Program on Mothers of Children with Neurodevelopmental Disorders: A Pilot Study. *Asian Nursing Research*, 16(2), 114-123. <https://doi.org/10.1016/j.anr.2022.03.005>
- Luby, J., Baram, T., Rogers, C., & Barch, D. (2020). Neurodevelopmental Optimization after Early-Life Adversity: Cross-Species Studies to Elucidate Sensitive Periods and Brain Mechanisms to Inform Early Intervention. *Trends In Neurosciences*, 43(10), 744-751. <https://doi.org/10.1016/j.tins.2020.08.001>
- Pennington, L., Laws, K., & Goldbart, J. (2017). Parent-mediated communication interventions for improving the communication skills of preschool children with non- progressive motor disorders. *Cochrane Database Of Systematic Reviews*. <https://doi.org/10.1002/14651858.cd012507>
- Provenzi, L., Giusti, L., Caglia, M., Rosa, E., Mascheroni, E., & Montirosso, R. (2020). Evidence and Open Questions for the Use of Video-Feedback Interventions With Parents of Children With Neurodevelopmental Disabilities. *Frontiers In Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01374>
- Reh, R., Dias, B., Nelson, C., Kaufer, D., Werker, J., & Kolb, B. et al. (2020). Critical period regulation across multiple timescales. *Proceedings Of The National Academy Of Sciences*, 117(38), 23242-23251. <https://doi.org/10.1073/pnas.1820836117>
- Scattolin, M., Resegue, R., & Rosário, M. (2022). The impact of the environment on neurodevelopmental disorders in early childhood. *Jornal De Pediatria*, 98, S66-S72. <https://doi.org/10.1016/j.jpmed.2021.11.002>
- Siller, M., Hutman, T., & Sigman, M. (2012). A Parent-Mediated Intervention to Increase Responsive Parental Behaviors and Child Communication in Children with ASD: A Randomized Clinical Trial. *Journal Of Autism And Developmental Disorders*, 43(3), 540-555. <https://doi.org/10.1007/s10803-012-1584-y>
- Tran, T., Luchters, S., & Fisher, J. (2016). Early childhood development: impact of national human development, family poverty, parenting practices and access to early childhood education. *Child: Care, Health And Development*, 43(3), 415-426. <https://doi.org/10.1111/cch.12395>
- Why parenting matters for children in the 21st century: An evidence-based framework for understanding parenting and its impact on child development | en | OECD*. Oecd.org. (2022). Retrieved 14 September 2022, from <https://www.oecd.org/publications/why-parenting-matters-for-children-in-the-21st-century-129a1a59-en.html>
- (2022). Retrieved 14 September 2022, from <https://espace.library.uq.edu.au/view/UQ:a6d4254>.

CHAPTER 6

Belief in Karma a Positive Determinant of Psychological Well-being in Young Adults.

Malima Garg¹ Anjal¹ & Sundeep K¹

¹We Avec U Organisation, Noida, India

Abstract : India, a religious country with a strong belief in its tradition and culture, has evolved over the years and has been highly influenced by westernization, especially among youth. Karma theory and “what goes around comes around” is one of the distinguishing features of Indian religions for thousands of years. The present study aims to study the effect of karma on psychological well-being among young adults. An online survey was conducted, with a target population of young adults (16-25 years) residing within the Delhi-NCR region. A total sample of 79 with religiously diverse backgrounds was administered on a measure of Beliefs in Karma (White, Norenzayan & Schaller, 2019) and the Oxford Happiness Questionnaire (Hills & Argyle, 2001). A correlation was established using Pearson’s product-moment correlation coefficient. A low positive correlation ($r=0.28$) was found between belief in karma and the oxford happiness scale predicting that karma plays a little role in determining one's psychological well-being. F value of 6.92 at $P < .01$ revealed a significant association between the two variables. Given the overwhelming need to promote well-being and increase recognition of multivariate indicators of well-being, it is critical to comprehend and investigate the impact of karma belief on psychological well-being. Recent research suggests that various indices of spiritual practices are strongly related to happiness. Further, other factors do contribute to one's psychological well-being. Karma and other associated factors can be studied in comparison to determine the resultant effect of various factors on psychological well-being. People’s beliefs about karma are warranted to understand how this particular concept entailing cognition, motivation, and action can affect a wide range of indicators of subjective well-being can be further explored.

Key Words: *Karma, Psychological Well-being.*

1.1. INTRODUCTION

Karma can be defined as the belief that your future is decided by the actions you commit. Additionally, it symbolizes the concept of universal justice, the belief that in the end, good will be rewarded and bad will be punished (Larson, 2020). However there is a growing interest in knowing how the paradigm and understanding of the term “karma” has evolved and changed. There is a need to look into the factors like depression, life expectancy, life satisfaction, well being, happiness and etc that are impacted by belief in karma. Belief in Karma is linked to, but not reducible to, theoretically related concepts such as belief in a just world, belief in a moralizing God, religious

involvement, and context relating to culture. Belief in Karma also predicts causal attributions for bad fortune in a unique way (Norenzayan, 2019). Immanent justice reasoning is supported by thought processes and assumptions that are retained as adults and serve significant psychological purposes in adulthood (Callan, Sutton, Harvey, & Dawtry, 2014). Karmic investments boost confidence in achieving a goal. People may be more likely to assist others when certain levels of uncertainty are prevalent and levels of personal control are limited, as though they may actively influence fate by performing good deeds (Converse, 2012).

There is increasing evidence that psychological well-being is linked to a lower risk of disease and mortality, and that it can be improved with fairly low interventions. To develop ideal well-being: mental, physical, social, and spiritual, a wider set of well-being measures, rigorous studies, and disseminable interventions are critical and required (Trudel-Fitzgerald et al., 2019). When psychological, social, and spiritual measures are concerned with psychological aspects (for example, happiness), they are frequently referred to as psychological well-being measures (PWB). While some PWB dimensions, such as life satisfaction, are frequently embedded in "quality of life" measures, this last multidimensional structure is much broader and includes other aspects of mental and physical health, such as perceived stress, functioning/disability status, and physical symptoms. (*Well-Being Concepts*, 2022, Salvador-Carulla et al., 2014, *Considerations for Incorporating "Well-Being" in Public Policy for Workers and Workplaces*, 2015).

There are multiple factors that impact the psychological well being of a person, furthermore, adherence to traditional gender roles are relevant to the psychological well-being of women and men, and women and men whose self-concept includes both masculine-instrumental and feminine-expressive characteristics have greater well-being (Matud, López-Curbelo, & Fortes, 2019) additionally, PWB and health are both influenced by factor, such as socioeconomic standing (e.g., education, personal income) (Trudel-Fitzgerald et al., 2019). According to the results of the multiple regression analysis, the psychological health of workers in the information technology industry is highly influenced by independent variables such as peers, role ambiguity, organizational climate, and job satisfaction (Dr. KDV Prasad, Rajesh, D., & Rao, M. , 2020). On top of that Self-esteem and interpersonal issues seem to be major determinants of well-being. (*Predictors of Psychological Well-Being among Treatment Seeking Transgender Individuals*, 2016). There are multiple factors that impact the psychological well-being of a person.

Many people from different cultural and religious backgrounds support the idea of karma, a type of supernatural justice concept that sits at the nexus of ideas about morality and justice and ideas about supernatural forces that control how life unfolds. It has been claimed that karma is connected to moral judgments and self-reported prosocial behavior (Melina, 2022). Kumar & Kumar (2013) have observed that Karma theory's teachings and guiding principles are therapeutic in style and share a lot of similarities with the concepts of positive psychology. Further, it has been observed that people who believe in the doctrine of karma score high on life satisfaction and well-being as compared to people who do not (Kumar, 2008). Believing in karma can impact many facets; it has been observed that believing in karma and such practices can act as a greater means to cope with trauma. (Davidson, Connor & Lee, 2005). Further, it has been shown that most kids concur that engaging in morally righteous social behavior—as opposed to morally wrong or morally illicit non-social behavior, would improve the likelihood that future desirable outcomes would materialize (Banerjee & Bloom, 2016). Furthermore, it has also been observed that karma belief was strongly and significantly linked to individualized consideration but did not significantly add to intellectual stimulation. This is most likely due to their awareness of the effects of their activities and the impact they have (Chadha N. et al. 2013). Gielen & Kashyap (2019),

marked the emphasis on moksha and the abolition of karmic effects on death created an atmosphere in which the victim was motivated to embrace and accept death. However, in contrast to the positive implications it has been seen that: the religious focus on cure in the pain and palliative care unit, on the other hand, may have made it more difficult for the patient to accept their impending death. On the same note, the Caraka Samhita also explores the function of karma as a predictor of the traits and personality of a person's lifespan, causation of illness, and otherwise unexplained epidemics. Such conjectures result in workable answers to the problem, which in turn strengthen the medical doctrine (Weiss MG 2013). As well as research has shown there is no association between belief in karma and “actual trustworthiness”, some people may form associations between the two but would make mistakes while doing so (Ong H. et al., 2022).

1.2. REVIEW OF LITERATURE

A study by Chang et al. (2021) delved into how belief in karma influences blame attribution in interpersonal conflicts. The results showed that individuals who strongly believed in karma were more likely to attribute blame to the actions of others, potentially leading to conflict escalation and reduced psychological well-being.

Research by Gupta and Bhattacharya (2020) explored the relationship between belief in karma and stress coping mechanisms in an Indian context. They found that individuals with strong karma beliefs were more likely to use positive coping strategies, such as seeking social support and maintaining a sense of optimism, which contributed to lower stress levels. This study suggests that belief in karma can be a valuable resource for managing stress and promoting psychological well-being.

Venkatesan, S., & Lakshmanan, A. (2020): conducted research on exploring “the role of belief in karma in coping with stress and emotional well-being among Indian adults”. The researchers uncovered a fascinating spectrum of responses within their participant group. On one end, they observed that some individuals harnessed their belief in karma as a potent coping mechanism, effectively reducing their stress levels. For these individuals, the concept of karma served as a source of solace and resilience, allowing them to navigate life's challenges with a sense of purpose and equanimity. However, on the opposite end of the spectrum, Venkatesan and Lakshmanan noted a contrasting narrative. Some participants grappled with the weight of guilt and a sense of fatalism closely tied to their belief in karma. These individuals found it challenging to reconcile their actions and life circumstances with their understanding of karma, leading to heightened stress levels and adversely affecting their emotional well-being.

Wang and Lau (2019) did a study on the relationship between karma beliefs and stress coping was explored. The findings indicated that while some individuals used karma beliefs as a coping mechanism to reduce stress, others experienced heightened stress due to perceived karmic retribution for past actions. This study highlights the individual variability in how belief in karma can affect psychological well-being.

Research by Chan et al. (2019) explored how belief in karma relates to coping strategies in a cross-cultural study involving participants from Eastern and Western cultures. They found that individuals who endorsed karma beliefs were more likely to engage in problem-focused coping strategies and exhibited lower levels of psychological distress. This suggests that belief in karma can be a valuable coping mechanism for individuals facing adversity.

Hari, R., & Perla, R. (2019): “the relationship between belief in karma and psychological well-being in a Western context” the study uncovered a spectrum of responses among participants, reflecting the intricate interplay between karma beliefs and psychological well-being. Some individuals reported experiencing heightened well-being as a direct consequence of their belief in karma. These individuals likely found solace and reassurance in the idea that their actions, both positive and negative, could influence their future circumstances. However, the study also brought to light a contrasting aspect of the relationship. Some participants, upon harboring strong karma beliefs, found themselves grappling with heightened levels of anxiety and stress. This phenomenon often occurred when individuals perceived adverse life events as a form of retribution or punishment for their past actions. Such perceptions could lead to a sense of guilt, remorse, or a constant fear of future repercussions, ultimately undermining their psychological well-being.

A study by Patel and Gupta (2018) investigated the relationship between belief in karma and fatalistic attitudes in a sample of college students. They found that while belief in karma was associated with a sense of moral responsibility, it was also linked to fatalistic thinking, which could undermine psychological well-being. This implies that the influence of karma beliefs on one's well-being could be contingent upon how individuals interpret and put these beliefs into practice.

Aknin and colleagues (2017) undertook a study “the relationship between karma beliefs and prosocial behavior” and thoroughly examined it. Their research revealed a compelling connection between these two factors. It was found that individuals who held strong beliefs in karma were significantly more inclined to engage in acts of kindness and altruism. These acts of kindness and selflessness, in turn, contributed to an overall increase in their well-being and happiness. This intriguing discovery suggests that karma beliefs can play a pivotal role in promoting positive social interactions and fostering a greater sense of psychological well-being.

A study by Sirois and Wood (2017) examined “the relationship between belief in karma and life satisfaction” in a sample of 300 participants. The intriguing findings unveiled in this research unveiled a compelling pattern. It emerged that individuals who held a robust belief in the concept of karma experienced notably elevated levels of life satisfaction when contrasted with those who did not endorse or subscribe to such beliefs. This discovery presents an intriguing perspective, highlighting a distinct positive correlation between a belief in karma and an individual's psychological well-being. Such insights, which emerged from the study, suggest that the conviction in the idea of karma carries significant implications for one's personal sense of fulfillment and contentment in life.

Study by Li and colleagues (2016), researchers examined the role of belief in karma in predicting subjective well-being among a sample of Chinese participants. The findings revealed that individuals who held stronger beliefs in karma tended to report higher levels of subjective well-being, including greater life satisfaction and positive affect. This study provides further evidence supporting the idea that belief in karma can be linked to improved psychological well-being.

Sharma, R., & Mukherjee, S. (2016): “the relationship between belief in karma and psychological well-being among college students”. The research revealed that those individuals who held strong convictions in the concept of karma experienced a profound impact on their overall well-being. Specifically, their study illuminated that these individuals reported significantly higher levels of life satisfaction. This heightened sense of contentment in life speaks to the profound influence that belief in karma can exert on one's perception of their own existence. Moreover, the research findings also unveiled a noteworthy trend regarding mental health. College students who embraced the idea of karma tended to exhibit lower levels of anxiety and depression.

This suggests that belief in karma may serve as a protective factor against these common psychological challenges, offering individuals a sense of resilience in the face of adversity.

Srivastava in (2015), titled "Belief in Karma and Psychological Well-being," the primary objective was to delve into the intricate connection between an individual's belief in karma and their psychological well-being, focusing on a cohort of Indian adults. The findings of this investigation unveiled a noteworthy and encouraging trend. It became evident that there was a robust and affirmative correlation between the degree of belief in karma and the levels of psychological well-being experienced by the participants. To glean these insights, Srivastava meticulously examined various facets of psychological well-being, such as life satisfaction and emotional well-being, among others. The results were striking, as they pointed towards individuals who endorsed and embraced karma beliefs reporting significantly higher levels of overall life satisfaction and emotional well-being compared to those who did not share these convictions.

Yip and Côté (2013) did a comprehensive study on "The emotionally intelligent decision maker: Emotion-understanding ability reduces the effect of incidental anxiety on risk-taking", the researchers discovered a noteworthy correlation between individuals who held strong beliefs in karma and their reported levels of life satisfaction and overall well-being. This intriguing finding prompted the researchers to delve deeper into the potential mechanisms underlying this relationship. The authors postulated that the belief in karma might play a pivotal role in fostering a profound sense of fairness and justice in individuals' lives. According to their hypothesis, individuals who subscribe to the principles of karma may be more inclined to perceive the world as a place where actions have consequences and where fairness ultimately prevails. This worldview, they argued, could serve as a psychological buffer against feelings of injustice or unfairness, thereby contributing to greater life satisfaction. The study suggests that the belief in karma isn't merely a spiritual or philosophical notion but may have tangible psychological implications. It appears to imbue individuals with a lens through which they interpret the world as a just and equitable place, ultimately enhancing their overall well-being and life satisfaction.

Krishnan, V. R., & Surya, S. (2012): "Belief in Karma and Mental Health: A Study among College Students in India," - The research aimed to shed light on whether the deeply rooted cultural belief in karma had any discernible impact on the psychological well-being of college students. Interestingly, their findings challenged conventional wisdom and departed from the conclusions drawn in some prior studies. Contrary to the expectations of many, Krishnan and Surya's investigation did not reveal a statistically significant correlation between belief in karma and psychological well-being among the studied cohort of college students. This unexpected outcome sparked significant interest and debate within the academic community. The implications of this research extended beyond merely presenting counterintuitive findings. It suggested that the intricate interplay between cultural and spiritual beliefs, such as karma, and mental health is far from straightforward. While belief in karma has deep roots in Indian culture and philosophy, it may not necessarily serve as a clear-cut determinant of mental health outcomes.

Koenig, H. G., & Büssing, A. (2010): Koenig and Büssing conducted a cross-cultural study examining the relationship between religiosity and mental health, including belief in karma as a component of religiosity. As part of their investigation, they specifically examined the role of belief in karma within the broader framework of religiosity. What they uncovered was truly intriguing; their research revealed a compelling and consistent pattern across Western and non-Western societies. Interestingly, they discovered that individuals who held a belief in karma tended to experience significantly better psychological well-being. This positive association between belief in karma and mental health extended its influence beyond cultural boundaries, implying that the

impact of karma beliefs on well-being transcended the distinctions between Western and non-Western societies.

Young adulthood is a transformative stage marked by rapid personal and social development. It's a time when individuals grapple with questions of independence and maturity, wondering whether they can navigate life's challenges on their own or if they remain ensconced in the protective cocoon of familial ties. This period sees a gradual shift towards decreased dependency and increased self-reliance across personal, social, and public spheres. It is a phase of exploration and self-discovery. Examining the relationship between belief in karma and psychological well-being in young adults is of paramount importance. As modernization blurs cultural boundaries, the pursuit of basic physiological and safety needs takes precedence in this age group. Understanding how these evolving cultural contexts intersect with karmic beliefs can shed light on their impact on well-being. Studying this connection provides valuable insights and a basis for interventions aimed at enhancing psychological well-being. By addressing the obstacles to well-being and fostering positive beliefs, we can empower young adults to navigate this critical life stage with resilience and positivity. This research contributes not only to individual well-being but also to our understanding of the broader concepts of positive psychology and cultural evolution in the modern world.

Objective

The present study aims to study the effect of karma on psychological well-being among young adults.

Hypotheses

1. There would be a significant positive correlation between Karma and Psychological Well-being.
2. Belief in Karma would predict psychological well-being among young adults.

1.3. METHODOLOGY

1.3.1. Sample

The study population consisted of young adults belonging to the age group of 16-25 years. For the quantitative research, a total sample of 79 (both males and females) participants with religiously diverse backgrounds was selected. A purposive sampling method was used to collect the data.

1.3.2. Tools

Belief in Karma (White, Norenzayan & Schalle, 2017).

It is a 16-item self-report measure of defining elements of the doctrine of Karma. It assessed the individual's belief in reincarnation, the belief that people's actions lead to valence congruent outcomes at a later point in time, the integration of those beliefs, and belief in the concept of "Karma." It has a high level of internal reliability (Cronbach's $\alpha = .94$). Respondents reported their agreement with these statements on a 5-point scale (1 = strongly disagree; 5 = strongly agree). Items 2 & 14 are reverse-scored.

Oxford Happiness Scale-Short (Hills & Michael, 2001).

It is an 8-item scale to measure the psychological well-being of an individual derived from a 29-item Oxford Happiness scale. The results for the full and shorter versions are significantly and strongly correlated, $r(168)=0.93$, $P<0.001$. Therefore, the OHQ demonstrated high-scale reliability with values Cronbach's α 0.91 respectively. Respondents reported their agreement with these statements on a 6-point scale (1 = strongly disagree; 6 = strongly agree). Items 1, 4 & 8 are reverse-scored. The sum of the item scores is an overall measure of happiness, with high scores indicating greater happiness.

1.3.3. Demographics

Demographic questions included the participant's gender, age, and whether they practice religion or not.

1.3.4. Research design

A correlational research design determines the extent to which data from two or more variables share a relationship. Belief in karma is the independent variable whose relationship and predictive ability are measured on the dependent variable, psychological well-being.

1.3.5. Procedure

The study population consisted of young adults belonging to 16-25 years of age. A purposive sampling method was used to collect the data. All the participants were administered on belief in karma and the Oxford happiness scale with appropriate ethical measures was considered. Data collected was analyzed using JASP (Jeffery's Amazing Statistics Program). Pearson Product-Moment correlation was established.

1.4. RESULTS AND INTERPRETATION

The present study aims to study the effect of karma on psychological well-being among young adults. For analysis, the data were analyzed using descriptive and inferential statistics using JASP (Jeffery's Amazing Statistics Program). Bar diagrams and pie charts were used to depict descriptive information. Pearson product-moment method of correlation was analyzed to find out the relationship between belief in karma and psychological well-being.

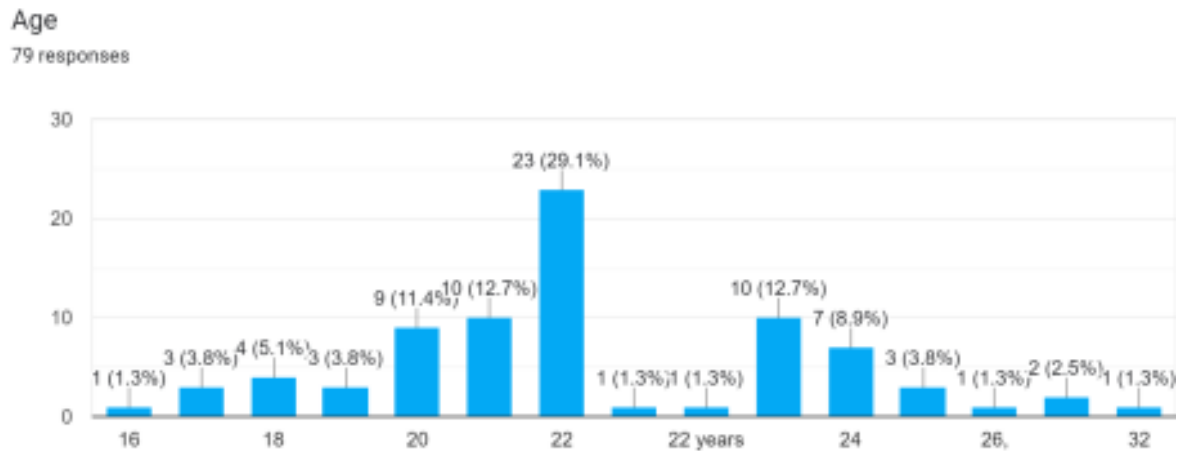


Fig 1 shows the no. of respondents distributed across ages.

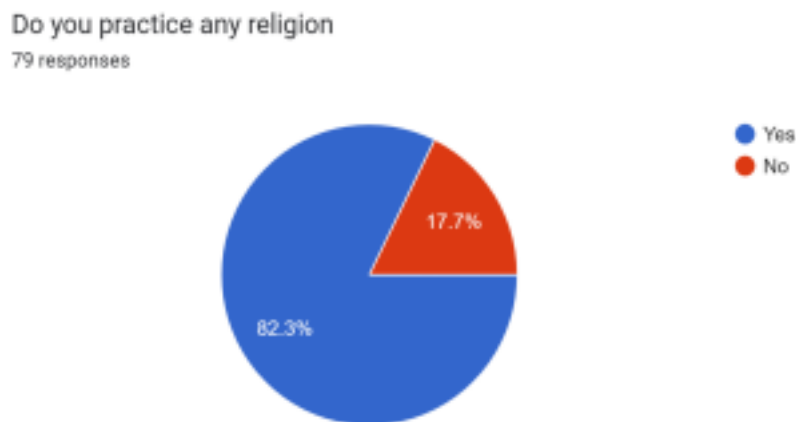


Fig2 shows the percentage of people who practice religion.

Pearson Product-Moment Correlation

For assessing whether there is any association between belief in karma and psychological well-being Pearson's Correlation method was conducted to determine the extent of the relationship between the two variables.

Table 1: Summary of the correlation coefficient between belief in karma and psychological well-being. (N=79)

Measure	Belief in Karma Psychological well-being
Belief in Karma	1 0.287**
psychological well-being	0.287**

**p < 0.1 (one-tailed)

Table 1 shows that the 'r-value' of Pearson's correlation is 0.28 which suggests that there is a correlation between belief in karma and psychological well-being among young adults. However, when the r-value is closer to either +1 or -1, it suggests a strong correlation. The acquired r-value is 0.28 which suggests a low positive correlation.

1.4.1. Regression Analysis

For assessing whether the association between belief in karma and psychological well-being is significant or not, the regression model was conducted to analyze the significance of the correlation found among young adults. Linear regression, r square, standard error, and observations were calculated.

Table 2: Regression model of analysis between belief in karma and psychological well-being among young adults (N=79).

Model	R	R2 Adjusted	R2 change	F	df1	df2
1	0.287	0.082	0.071	6.921**	1	77

**p < 0.01

The regression analysis results indicate that the model is statistically significant, with a significant F-statistic (F = 6.921**). Approximately 28.7% of the variance in the dependent variable is explained by the independent variable(s) (R = 0.287), and this explanatory power remains significant even after adjusting for model complexity (R-squared adjusted = 0.082). Additionally, the addition of the independent variable(s) resulted in a notable increase in the explanatory power of the model (R-squared change = 0.071). Overall, this suggests that the independent variable(s) have a meaningful impact on explaining the variance in the dependent variable.

1.5. DISCUSSION

This quantitative research investigated the relationship between belief in karma and subjective well-being among young adults. The doctrine of karma attributes the quality of a person's life to

that person's freedom and responsibility for all actions. It is a cause-effect belief by which a person inevitably has to face the consequences of one's own good or bad deeds, both from the past and current life. Thus, intuitively, people who strongly believe in the doctrine of karma should be more likely to engage in good deeds with an expectation of reaping relevant karmic rewards, which could be the subjective experience of well-being, as indicated in this research. Psychological well-being refers to positive functioning that includes one's readiness with others and self-referent attitudes determining mastery and personal growth. Young adulthood is a critical period ranging in age from late teens to their thirties, with a lot of pressure to search for meaning, shifting boundaries, and change in one's environment. Therefore, witnessing concepts of karma and psychological well-being during this age would help in determining various interventions to deal with obstacles to one's psychological well-being and developing beliefs towards positivity and various concept of positive psychology. As reflected in the varied and relevant literature, belief in karma may be considered socially relevant teleological thinking with a tendency to attribute purpose to life events and natural phenomena. A positive attribution to life events seems to have some specific positive consequences, in terms of relationship satisfaction, positive emotions, and resiliency that emerged as the specific indicators of well-being. (Edara, 2019).

Religious affiliation does contribute to well-being. Studies have indicated that people who have a religious faith tend to report higher levels of both physical and subjective well-being. Overall, the ideological underpinnings of religious beliefs and a greater sense of coherence may result in better psychological well-being. As reported in fig 2, a majority of participants being religiously associated or having faith is indicative of the fact that karma does have some amount of influence on one's psychological well-being. Further, results reported a low significant correlation between belief in karma and psychological well-being in young adults.

Young Adulthood is a period of rapid development and is determined by varied personal and social changes. This stage can often be confusing for many individuals wherein they wonder whether they are mature enough to stand on their own feet or whether their lives are still enveloped under the protective wings of their familial ties. Youth is an experience that may be characterized by a tendency towards decreasing dependency and increasing independence in various spheres such as personal, social, and public life, etc. Therefore, this is a period of immense exploration and development of the sense of various concepts and successfully moving towards the attainment of well-being. PWB and health are both influenced by factors, such as socioeconomic standing (e.g., education, personal income) as reported by Trudel-Fitzgerald et al., 2019. Psychological well-being at this age is often at a stage of development and an unconscious motive that an individual is striving to achieve. As reported, life satisfaction is frequently embedded in "quality of life" measures which include other aspects of mental and physical health, such as perceived stress, functioning/disability status, and physical symptoms. (*Well-Being Concepts*, 2022, Salvador-Carulla et al., 2014, *Considerations for Incorporating "Well-Being" in Public Policy for Workers and Workplaces*, 2015). Therefore, low correlation can be attributed to the fact that various factors such as age, societal goals, and achieving basic physiological and safety needs impact one's psychological well-being. Karma and psychological well-being does have a significantly low correlation.

1.6. CONCLUSION

Belief in karma on the psychological well-being of young adults has a low positive impact as it can be attributed to various other factors such as age, experience, motives, and beliefs. Therefore,

karma and other associated factors can be studied in comparison to determine the resultant effect of various factors on psychological well-being. People's beliefs about karma are warranted to understand how this particular concept entailing cognition, motivation, and action can affect a wide range of indicators of subjective well-being and can be further explored in comparison to various age groups.

REFERENCES

- Aknin, L. B., Hamlin, J. K., & Dunn, E. W. (2012). Giving leads to happiness in young children. *PLoS ONE*, 7(6), e39211.
- Banerjee, K., & Bloom, P. (2016). You get what you give: children's karmic bargaining. *Developmental Science*, 20(5).
- Centers for Disease Control and Prevention. Well-being concepts 2018 [Available from: <https://www.cdc.gov/hrqol/wellbeing.htm#eight>].
- Chan, S. M., Ng, S. M., & Ho, D. Y. (2019). The role of belief in karma and coping strategies in psychological adjustment. *International Journal of Psychology*, 54(5), 605-614.
- Chang, L., Wang, Y., & Li, H. (2021). Does belief in karma predict blame attribution and psychological well-being in the context of interpersonal conflicts. *Current Psychology*, 40(8), 4316-4324.
- Converse, B. A. (2012). Investing in Karma: When Wanting Promotes Helping - Benjamin A. Converse, Jane L. Risen, Travis J. Carter, 2012. Psychological Science.
- Davidson, J. R. T., Connor, K. M., & Lee, L.-C. (2005). Beliefs in karma and reincarnation among survivors of violent trauma. *Social Psychiatry and Psychiatric Epidemiology*, 40(2), 120–125.
- Gielen, J., & Kashyap, K. (2019). Belief in Karma and Mokṣa at the End of Life in India.
- Gupta, A., & Bhattacharya, A. (2020). Karma, stress coping and psychological well-being: A study on Indian university students. *Asian Journal of Psychiatry*, 49, 101946.
- Koenig, H. G., & Büssing, A. (2010). The Duke University Religion Index (DUREL): A Five-Item Measure for Use in Epidemiological Studies. *Religions*, 1(1), 78-85.
- Krishnan, V. R., & Surya, S. (2012). Belief in Karma and Mental Health: A Study among College Students in India. *Mental Health, Religion & Culture*, 15(8), 825-837.
- Kumar, A., & Kumar, S. (2013). Karma yoga: A path towards work in positive psychology. *Indian Journal of Psychiatry*, 55(6), 150.

- Kumar, K. (2008, May 22). Faith in the Doctrine of Karma: Effect on Psychological Well-Being and Life Satisfaction.
- Larson, P. (2020). Karma. *Encyclopedia of Psychology and Religion*, 1318–1318.
- Li, J., Li, Y., Li, X., & Li, X. (2016). Belief in karma and subjective well-being: The mediating role of life satisfaction and the moderating role of God schema. *Social Indicators Research*, 127(3), 1267-1280.
- Matud, M. P., López-Curbelo, M., & Fortes, D. (2019). Gender and Psychological Well-Being. *International Journal of Environmental Research and Public Health*, 16(19), 3531.
- Patel, R. K., & Gupta, N. (2018). Belief in karma and fatalism: Contrasting effects on personal moral responsibility. *Journal of Positive Psychology*, 42(2), 289-302.
- Predictors of psychological well-being among treatment-seeking transgender individuals. (2016). *Sexual and Relationship Therapy*.
- Salvador-Carulla L, Lucas R, Ayuso-Mateos JL, Miret M. Use of the terms “wellbeing” and “quality of life” in health sciences: a conceptual framework. *Eur J Psychiat*. 2014;28(1):50–65.
- Schulte PA, Guerin RJ, Schill AL, Bhattacharya A, Cunningham TR, Pandalai SP, et al. Considerations for incorporating "well-being" in public policy for workers and workplaces. *Am J Public Health*. 2015;105(8):e31–44.
- Sirois, F. M., & Wood, A. M. (2017). Gratitude uniquely predicts life satisfaction beyond the effect of personality traits. *Personality and Individual Differences*, 50(2), 496-501.
- Srivastava, A. (2015). Belief in Karma and Psychological Well-being. *Psychology and Developing Societies*, 27(2), 249-272.
- Trudel-Fitzgerald, C., Millstein, R. A., von Hippel, C., Howe, C. J., Tomasso, L. P., Wagner, G. R., & VanderWeele, T. J. (2019). Psychological well-being as part of the public health debate? Insight into dimensions, interventions, and policy. *BMC Public Health*, 19(1).
- Venkatesan, S., & Lakshmanan, A. (2020). Role of Belief in Karma in Coping with Stress and Emotional Well-being among Indian Adults. *Journal of Religion and Health*, 59(3), 1345-1359.
- Wang, J., & Lau, J. T. F. (2019). Karma and coping: Conceptualization, measurement, and application in stress research. *Journal of Happiness Studies*, 67(3), 123-141.
- Weiss MG. (2013). Karma and ayurveda. *Ancient Science of Life*, 6(3).

CHAPTER 7

Disaster Volunteering During COVID-19 Pandemic: A Systematic Review

Mohd Saiful Zaidi bin Mazlan^{1,2} & Tan Joo Siang¹

¹ Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor Malaysia.

² Department of Psychology and Counselling, Faculty of Education and Psychology,

Southern University College, Johor, Malaysia.

Abstract: Purpose – The aim of this paper is to identify the type and method of disaster volunteering during COVID-19 Pandemic and to propose potential gaps based on the problems and the opportunities identified through the systematic review. Design/Methodology/Approach – The review on the type and method of disaster volunteering during COVID-19 pandemic had been done by adapting Tranfield et al.'s (2003) phases of Systematic Review for research that had been done between March 2020 until November 2021. Findings and Discussion– The descriptive highlights the type and method of volunteering based on inclusion and exclusion criteria of the review. Through the systematic review, the authors argue about two aspects pertaining trends of disaster volunteering during COVID-19 pandemic; more diverse disaster volunteering style and the revolution in communications technology during COVID-19 pandemic. Conclusion and Recommendation – The authors highlight three potential academic and practical gaps based on the problems and the opportunities identified through the systematic review.

Keywords – *Disaster Volunteer, Disaster Volunteering, COVID-19 Pandemic, Sistematic Review*

1.1. INTRODUCTION

As the COVID-19 pandemic struck 213 countries (Shah et al., 2020), it has become a global concern. The strategies ranging from mitigating the effect of the virus such as minimizing the death and numbers of infection through social distancing (Choi et al., 2021; O'Byrne et al., 2020), movement control order (Shah et al., 2020) as well as recovering society from the damage such as providing physical (Morgan, 2020; Olagundoye et. al. 2021), financial and psychological aid (Fearn et. al., 2021; Lee et. al., 2021; Wong and Leung, 2021). Similar to other types of disaster, COVID-19 outbreak causes massive, large-scale damage (Chen et al., 2020) and the virus unique nature including its capability to evolve to multiple variants causes serious hindrance to the economic development and societal wellbeing. The highly infectious nature of the virus resulted into situation where disaster volunteering activities, be it physical, monetary or psychological aid were greatly restricted. At the same time, the alteration of the living condition to suite the new norm creates further negative impact of societal mental health (Olff et al., 2021) including the rise of loneliness (Whitehead and Torossian, 2021), and increasing risk of late-life suicide (Sheffler et al., 2021). Disaster volunteering research had emanating to address this issue with the purpose of understanding the kind of volunteering that could be offered to vast targeted group within the

society. While the number of research is growing, the information on disaster volunteering during covid-19 pandemic that had been reported in the existing research literature is scarce. Hence, the aim of this paper is to identify the type and method of disaster volunteering during COVID-19 Pandemic and to propose potential gaps based on the problems and the opportunities identified through the systematic review.

1.2. DESIGN/METHODOLOGY/APPROACH

A systematic literature review provides researcher an opportunity to critically synthesize information by exploring relevant past studies in an in-depth manner. Unlike narrative review, systematic review allows researcher to focus on answering research inquiry based on scientific method which includes how researcher have conducted the review, the type of documents that involved in the review, and the time frame involved during the review to minimize researcher's biases. Systematic review involves determining scope of the review based on inclusion and exclusion criteria, the information obtained could be replicated and is useful to understand the confounding evidence provided in the existing literature (Lame, 2019).

To fulfill the aim of this paper, researchers had adapted Tranfield et al.'s (2003) systematic literature review phases for this review. This systematic review involves 3 stages including: (1) planning the review; (2) conducting a review; and (3) reporting and dissemination. Stages (1) and (2) will be presented in the following paragraph while descriptive data obtained in the review will be included and discussed in

1.3. FINDINGS AND DISCUSSION.

In Stage 1, researchers planned on fulfilling the scope of the review to ensure the materials reviewed in the literature are relevant to the purpose of this paper; to identify type and method of disaster volunteering during COVID-19 Pandemic and to propose potential gaps based on the problems and the opportunities identified through the systematic review. While Tranfield et al. (2003) proposed that reviewer should not delimited search towards published journals but including unpublished studies, conference proceedings, industry trials and the internet, the current reviewer decided to go against it for two reasons; minimizing inaccurate information of events and settings provided in the materials (Ary et al., 2018) and availability of the journals in the database (peer reviewed journal) to make it ethically researchable.

Stage 2 involved selection of relevant research in the literature, inclusion and exclusion criteria were identified as per Table 1 below. The information collected for each study was:

- (1) Reference details including author(s) and year of publication.
- (2) Type and method of disaster volunteering during COVID-19 Pandemic.
- (3) The source of past literature in which are peer reviewed journal accessed via UTM Online Database only (Scopus, Oxford Journals, Taylor & Francis Online).
- (4) The time frame for this literature review where the past research included were published between March 2020 until November 2021.

Table 1

Systematic Review Protocol for Including and Excluding the Past Research

Inclusion Criteria	Exclusion Criteria
General Disaster volunteering related to COVID-19 pandemic only. Peer reviewed journal accessed via UTM Online Database; Scopus: 196 initial screening; 3 included. Oxford Journals: 211 initial screening; 1 included. Taylor & Francis Online: 9 initial screening; 3 included. Total = 7 journals included Keywords: COVID-19, Disaster Volunteer Time frame: 03/2020 - 11/2021	Disaster volunteer which is not related to COVID-19 pandemic only (eg: 2021 Haiti earthquake, 2020 Beirut explosion).
Specific Objective type,method of disaster volunteering during COVID-19 Pandemic.	

1.3.1. Descriptive Analysis

1.3.1.1. Type and Method of Disaster Volunteering

Table 2

Type and Method of Disaster Volunteering

Research	Type of Volunteering			Method Digital/Online/Telephone	Face-to-face
	Mandatory	Voluntary	Mixed		
1 Altillo et. al., (2021)	x			x	
2 Al Gharaibeh et. al., (2021)			x		x
3 Fearn et. al., (2021)		x		x	
4 Lee et. al., (2021)		x		x	
5 Morgan (2020)		x			x
6 Olagundoye et. al., (2021)			x		x
7 Wong and Leung (2021)		x		x	
Total	1	4	2	4	3

Table 2 illustrates the types and methods of disaster volunteering during COVID-19 pandemic. Mandatory volunteering involved medical students who had to volunteer as a part of assessment requirement in their course program using virtual field placement in engaging pandemic response (Altillo et. al., 2021). Four research had been done with voluntary disaster volunteers with three of the research involving digital/online/telephone (Fearn et. al., 2021; Lee et. al., 2021; Wong and Leung, 2021) while one research involving face-to-face (Morgan, 2020). Only two research involving a mixture of both mandatory and voluntary volunteering (Al Gharaibeh et. al., 2021; Olagundoye et. al., 2021).

Based on the data retrieved, two patterns were identified. Firstly, the method of disaster volunteering was mainly influenced by the capabilities of disaster volunteers to execute the volunteering activity either via digital, online, telephone or face-to-face platforms but not related to the field of service that the volunteers served. For instance, Altillo et. al. (2021) highlighted the use of virtual field placement in engaging pandemic response by medical students while pharmacy volunteers delivered volunteering aid through face-to-face (Morgan, 2020) while volunteering as healthcare profession. Similar pattern could be seen when disaster volunteering was conducted by volunteers utilizing digital/online/telephone platforms while providing psychosocial support (Fearn et al., 2021; Lee et al., 2021 & Wong & Leung, 2021).

1.4. DISCUSSION

1.4.1. Trends of Disaster Volunteering during COVID-19 Pandemic

During the Covid-19 pandemic, the style of disaster volunteering was diverse as volunteers make decisions about where, how and why they volunteer. For instance, 90% of the volunteers used phone as a medium to provide volunteering services to overcome the need to travel and to have the flexibility to schedule their time to volunteer (Lee et. al., 2021). In a similar situation, counsellors who were the disaster volunteers had found that the use of online psychological support benefits both counsellors and clients as it removes the power and status barriers due to physical settings, dress and non-verbal cues of counsellors (Wong & Leung, 2021). Hence, the clients can exchange information with counsellors on equal standings and thus found effective throughout psychological support process.

Lee et. al. (2021) had reported that during the pandemic, more older adult volunteers were able to participate in volunteering as compared to previous research due to traveling cost and the need for flexible volunteering schedule (Crittenden, 2018). In the case of a study by Fearn et al. (2021), volunteers managed to offer psychological support through multiple platforms including telephone calls, video calls, email and text messages which enabling them to easily implement remote befriending with the residents (older adults in Australia). Subsequently, such situation implies the revolution in communication technology has eliminated the need for disaster volunteerism to be tied to specific times and locations during COVID-19 pandemic as while as benefitting specific population in which could not participate in volunteering activity.

1.5. CONCLUSION

In conclusion, there are three gaps that had been identified after reviewing the trends of disaster volunteering during COVID-19 pandemic: changes of styles in disaster volunteering; use of

information technology (IT) based platform; and lack of research related to spontaneous volunteer. First, the unique nature of COVID-19 pandemic resulted into changes of styles in disaster volunteering where physical movement restriction promotes the use of remote access in providing aid through digital and online platforms. While non-medical disaster volunteers with certain level of professional qualification including counsellors and mental health professionals were involved in disaster volunteering services (Wong & Leung, 2021), there were psychosocial volunteering services offered by volunteers with limited or no training (Fearn et. al., 2021 & Lee et. al., 2021). It brings into question about the need for government to set the basic professional requirement based on the nature of the disaster volunteering to maintain the standard of service and integrity when it comes to aids provided by the mental health professionals. On top of this, there is a need to have and to revise existing tele-mental health guidelines to secure the welfare of the community. Rules and regulations to govern volunteers who are qualified to provide support to the community are scarce. Supervision and management of volunteers by governing bodies are under studied. More research relating to the quality and management of disaster volunteering as well as the government of disaster volunteerism need to be done to uphold quality and prevent negligence or unintentional malice.

Secondly, IT based platform facilitated changes in disaster volunteering from physical, mundane method to the new norm. While the benefits utilizing this platform diminished the need for disaster volunteerism to be tied to specific times and locations, hindrance in term of cost, internet connection and target population alarm the needs to study on this matter. Disaster volunteering services need to be more inclusive to provide disaster volunteering services to different population and areas. It is important to determining its effectiveness when providing or receiving disaster volunteering aid.

Through this systematic review, no study has been reported on spontaneous disaster volunteering during COVID-19. The suitability and availability of disaster volunteering during and after COVID-19 pandemic are in question. The involvement of spontaneous volunteers in disaster volunteering received a mixed review due to its advantages and its disadvantages. While recruitment of more volunteers provides an opportunity to increase number of volunteering task force is plausible, increasing number of disaster volunteers who are incompetent had been proven to be harmful to the negative psychological effect during and post disaster volunteering event (Sauer et al., 2014). Hence, only by recruiting the right person who is competent and ready to provide aid during disaster could improve effectiveness in disaster volunteering.

This review has its limitation and delimitation due to the inclusion and exclusion criteria to fulfill its purpose. Firstly, the review involved disaster volunteering related to COVID-19 pandemic only based on the limited research published between March 2020 until November 2021. In addition, the source of past literature in which are peer reviewed journal accessed via institution Online Database only (Scopus, Oxford Journals, Taylor & Francis Online). Therefore, there might be research papers that are relevant but not included in the review. It should be noted that current researchers had made these considerations in order to answer the review purpose in its possible ethical and approachable manner.

REFERENCES

- Alttillo, B. S., Gray, M., Avashia, S. B., Norwood, A., Nelson, E. A., Johnston, C., ... & Mercer, T. (2021). Global health on the front lines: an innovative medical student elective combining education and service during the COVID-19 pandemic. *BMC medical education*, 21(1), 1-12.
- Al Gharaibeh, F., Mahmud, A., & Islam, M. R. (2021). Community initiatives against Covid-19 in the United Arab Emirates. *Community Development Journal*.
- Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. (2018). Introduction to research in education. Cengage Learning.
- Chen, H. Y., Ahmad, C. A., & Abdullah, K. L. (2020). Disaster relief work: The experiences of volunteers in Malaysia. *International Journal of Disaster Risk Reduction*, 43, 101414.
- Choi, E. Y., Farina, M. P., Wu, Q., & Ailshire, J. (2021). COVID-19 social distancing measures and loneliness among older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*.
- Crittenden, J. A. (2018). Volunteering as a strategy for combatting social isolation. In L. W. Kaye & C. M. Singer (Eds.), *Social isolation of older adults: Strategies to bolster health and well-being* (pp. 119–133). Springer Publishing Company.
- Fearn, M., Harper, R., Major, G., Bhar, S., Bryant, C., Dow, B., ... & Doyle, C. (2021). Befriending older adults in nursing homes: volunteer perceptions of switching to remote befriending in the COVID-19 era. *Clinical Gerontologist*, 1-9.
- Lame, G. (2019) ‘Systematic Literature Reviews: An Introduction’, in Proceedings of the 22nd International Conference on Engineering Design (ICED19), Delft, The Netherlands, 5-8 August 2019. DOI:10.1017/ dsi.2019.169
- Lee, K., Fields, N. L., Cassidy, J., & Feinhals, G. (2021). Process and outcomes of telephone reassurance program training for older adult volunteers. *Educational Gerontology*, 47(1), 36-45.
- Morgan, R. (2020). COVID-19 disaster response: A pharmacist volunteer’s experience at the epicenter. *American Journal of Health-System Pharmacy*, 77(21), 1786-1788.
- Sauer, L., Catlett, C., Tosatto, R., & Kirsch, T. (2014). The Utility of and Risks Associated with the Use of Spontaneous Volunteers in Disaster Response: A Survey. *Disaster Medicine and Public Health Preparedness*, 8(1), 65-69. doi:10.1017/dmp.2014.12
- Shah, A. U. M., Safri, S. N. A., Thevadas, R., Noordin, N. K., Abd Rahman, A., Sekawi, Z., & Sultan, M. T. H. (2020). COVID-19 outbreak in Malaysia: Actions taken by the Malaysian government. *International Journal of Infectious Diseases*, 97, 108-116.

- Sheffler, J. L., Joiner, T. E., & Sachs-Ericsson, N. J. (2021). The interpersonal and psychological impacts of COVID-19 on risk for late-life suicide. *The Gerontologist*, 61(1), 23-29.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British journal of management*, 14(3), 207-222.
- O'Byrne, L., Gavin, B., & McNicholas, F. (2020). Medical students and COVID-19: the need for pandemic preparedness. *Journal of Medical Ethics*, 46(9), 623-626.
- Olagundoye, O., Adewole, O., Onafeso, E. T., Akinwumi, O., Amosun, F., & Popoola, O. (2021). Comparing the family characteristics, professional profile, and personality traits of COVID-19 volunteer and nonvolunteer frontline healthcare workers at the epicenter in Nigeria. *Health Science Reports*, 4(3), e338.
- Olf, M., Primasari, I., Qing, Y., Coimbra, B. M., Hovnanyan, A., Grace, E., ... & Consortium, T. G. C. (2021). Mental health responses to COVID-19 around the world. *European Journal of Psychotraumatology*, 12(1), 1929754.
- Whitehead, B. R., & Torossian, E. (2021). Older adults' experience of the COVID-19 pandemic: A mixed-methods analysis of stresses and joys. *The Gerontologist*, 61(1), 36-47.
- Wong, J. H., & Leung, C. T. L. (2021). Trauma-informed practice and supervision for volunteer counsellors of online psychological support groups during the impact of COVID-19. *Asia Pacific Journal of Social Work and Development*, 31(1-2), 67-72

CHAPTER 8

The Effectiveness of Eye to I© Intervention Online and In-person during the COVID-19 Pandemic and Beyond: A Follow-up Study

Chadha, A. ¹, Kaur, M², Mittal, D. ³, Khattar S⁴, Gupta², Schuchert, S. A⁵

¹*Amity University, Jaipur, India*

²*Potentials Therapy Center, New Delhi. India*

³*FLAME University, Pune, India*

⁴*Columbia University, Mumbai, India*

⁵*Language Development Services, New Delhi, India*

Abstract: The shift to virtual living due to Covid-19 created an urgent need to adjust therapy into an online format in 2020 (Ioane, et. al, 2021). Online interventions required adaptation of traditional techniques and introduction of new ones to maintain the therapeutic focus (Morton et. al., 2021). During the pandemic, the Eye to I© model delivered at Potentials Therapy Center, New Delhi, India, also saw a shift to online implementation of therapy. Initial research conducted on effectiveness of this online implementation reflected significant improvement in life skills of individuals with ASD (Khattar, et al., 2022). The current study aims at following up on this initial research by mapping progress as therapy returned to in-person format for some and remained online for others; specifically exploring areas of identity formation, perspective-taking and enhancement of social cognition. Two participants (1 male, 1 female) were interviewed to explore their understanding of self, and the world around them. Semi-structured interviews were conducted with parents and therapists to incorporate their perspectives on the effectiveness of this model. Results revealed enhanced social cognition ability in candidates. Specifically, in understanding of social cues, self-expression, perspective-taking and independent life skills. The paper concludes that Eye to I© therapy is effective in developing and enhancing life-skills and social cognition for individuals with ASD in both online and in-person formats. Thus indicating an increased capacity to deliver therapy and expand the reach of this intervention in today's technology driven world.

Keywords: *Autism, Social Communication, Social Cognition, Perspective Taking, Online Therapy, COVID-19.*

1.1. INTRODUCTION

Autism Spectrum Disorder (ASD), a developmental disorder, typically includes early-appearing social communication difficulties and repetitive sensory-motor behaviours that can impact day to day functionalities at all ages (Lord et. al., 2018). Therapeutic interventions that target social communication best address skill development focusing on behavioural approaches in people with ASD (Cotugno, 2009). Due to COVID-19's induced shift to virtual living in 2020, there was a pressing necessity to translate therapy to an online setting (Ioane,

et. al., 2021). Both new and classic strategies had to be adapted to maintain the therapeutic focus during online treatments (Morton et. al., 2021).

The Eye to I^o therapy intervention model delivered at Potentials Therapy Center, New Delhi, India, shifted to online implementation of therapy during the pandemic as well. Eye to I^o is a therapeutic intervention model targeting core developmental skills such as sensory integration, joint attention, affect sharing and pre-linguistic functions (Khattar et. al., 2022). As learners advance developmentally, this unique model facilitates more advanced skills in communication and learning by addressing the foundations of social cognition: emotional regulation, executive functioning, and perspective taking skills as incorporated into everyday living. The efficacy of Eye to I^o therapy in addressing the initial challenges and adaptations to online therapy was explored by investigating experiences from April 2020 to July 2021. Semi-structured interviews with parents and therapists revealed differences in execution of goals and activities but therapeutic efficacy and improvement in social communication, familial relationships and emotional development (Khattar et. al., 2022).

The current paper is a follow-up study with the purpose of giving voice to the students' experiences with online and offline therapy during pandemic isolation and the gradual emergence from isolation as social interactions increased. Specifically, the social cognition areas of identity formation and emotional expression, perspective taking, and development of life skills have been explored in these individuals with Autism Spectrum Disorder.

Individuals with ASD often experience atypical development in aspects of social cognition such as social expression, emotional regulation, and decision making. Difficulties in these skill areas can affect motivation, learning and independent living (Geller, 2005, Woodcock et. al., 2019). For example, commuting, cooking, and grocery shopping all involve complex problem solving abilities, emotional assessment and decision making skills which are often compromised in individuals on the autism spectrum (Nathalie, 2011). Not only do these differences in social cognition skills affect independent living but they can also inhibit development of insight and self awareness crucial aspects of social identity formation (Cooper et. al., 2017, Hobson et.al., 2006). This understanding of self identity in turn affects understanding of other people and their perspectives - contributing to the formation of Theory of Mind and perspective taking skills (Huang, et. al. 2017).

Perspective taking, the ability to determine mental states of others in order to explain, understand or predict their behaviour, is often delayed or underdeveloped in individuals with ASD (Charlop-Christy & Daneshvar, 2003). Comprehending other's attitudes, appreciating their beliefs, perceiving interactions and gestures, and socially predicting behaviours can be challenging tasks for those on the autism spectrum, in turn, making social relationships and interactions strenuous (Huang et. al., 2017). Interventions that build skills in these areas could facilitate daily living skills, self esteem, and a sense of community belonging (Cooper, et. al. 2020, Huang et. al. 2017). Current research delving into the notions of deficits versus differences, identification with the autism community and markers of mental health highlights the complexity of these issues, as well as the importance of exploring the social cognition subtopics of self awareness, identity, emotional regulation, and independent skills with individuals on the spectrum (Atherton et.al., 2018, Cresswell, L., & Cage, E., 2019).

The current study aims to explore skill development in the areas of identity and emotional regulation, perspective-taking and independent living through the lens of the autism individuals and their intervention therapists. Using qualitative investigative measures, an in-depth analysis examines the participant experience in the development of these essential skills and the role of Eye to I therapy facilitating the well-being and growth of individuals with ASD.

1.2 METHOD

The present study continues this investigation (Khattar, et. al. 2022) into the therapeutic experience of individuals participating in online and offline Eye to I^o therapy with Potentials Therapy Centre, New Delhi. The specific focus of this follow up study was to review the efficacy of therapy in both online and offline capacities as well as to develop an intimate understanding of emerging social cognition skills from the point of view of individuals involved. Social Cognition was characterised by three interdependent subareas as depicted in figure 1 below.

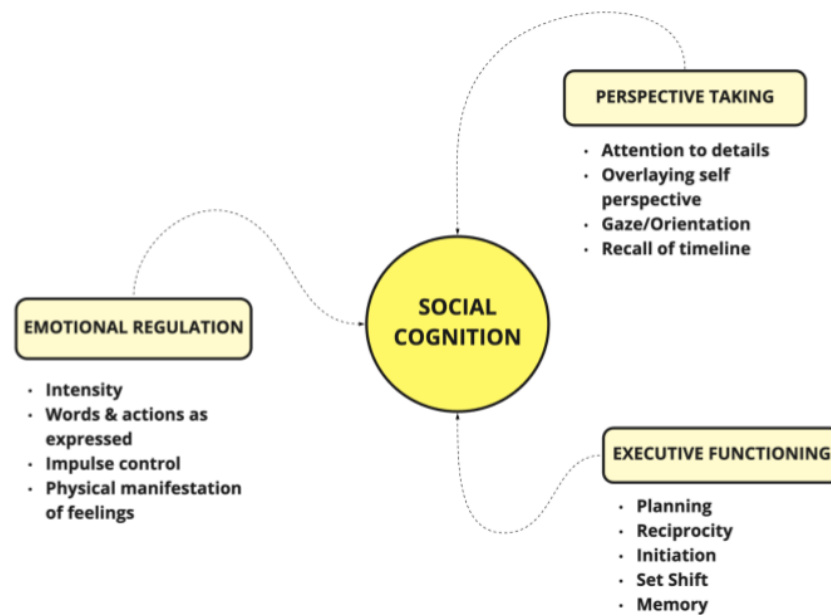


Figure 1. Social Cognition and sub-areas

In-depth interviews with learners and therapists were the source of qualitative information. This paper presents case studies of two students who recieved online, or a combination of online/offline, Eye to I^o therapy during the Covid-19 pandemic isolation and re-entry into offline interaction. Research utilised convenience sampling and a qualitative design using in-depth interviews.

1.2.1 Participants

Two individuals with ASD and/or Social Communication disorder receiving therapy Eye to I^o therapy and their respective therapists were interviewed. In the initial days, the parents of the individuals were also trained to help in facilitating the therapy session and ensure a supportive environment. One individual transitioned into offline therapy format as pandemic restrictions were lifted while another continued with online sessions. Demographic details of the students are mentioned below - names changed to maintain confidentiality:

Table 1. *Demographic Details of Individuals with ASD participating in the study*

	Ananya	Rishab
Age	25 years	20 years
Gender	Female	Male
Mode of Therapy	Online, followed by Offline	Online
Prior therapy	Yes, not Eye to I®	Yes, not Eye to I®

1.2.2 Procedure

The study was conducted utilising both online and offline mediums. Semi-structured interviews were conducted with therapists in the online format using the Zoom application on a mutually convenient and pre-arranged day. The interviews with therapists were approximately 30-45 minutes. Similarly, the participants were also interviewed with Rishab being interviewed online via Zoom for 25 minutes and Ananya being interviewed in-person at the Potentials Therapy Center for 22 minutes. These interviews were purposely semi-structured with loose scaffolding to allow exploration of topics using further probes. The questions were centred around the areas of emotional regulation and identity formation, independent life skill development and perspective taking, including the skills cultivated, scope and transition of therapy. Variations in terms of therapy frequency, therapy mode and consistency were noted and included.

1.3 RESULTS

These case studies indicate that Eye to I was effective in facilitating social cognition skill development for each participant across both online and offline modes. In separate interviews with Ananya and her therapist both reported a significant gain in independent lifestyle skills and emotional regulation skills, although perspective taking skills were still mostly absent and thus an area of continued therapeutic focus. She adapted well to the offline experience of meeting people and getting in touch with them at the center. She could initiate conversations with strangers but found it challenging to keep up with those conversations. Interviews with Rishabh and his therapist showed that he too acquired new skills in social cognition. After involvement in Eye to I therapy, he managed to live away from his family, and talk to unfamiliar people in varied online and offline environments. Rishab also showed sufficient self awareness to gain insights into his interests and obsessions, and into his sexuality and identity. However, it remains difficult for Rishab to read gestures and social cues - thus taking perspective of others is still a challenge. Though perspective taking skills are still to be improved as it is difficult for him to read other people's cues and gestures.

Table 2. *Therapy Participant Experience 1: Ananya*

	Participant's Reflections	Therapist's Reflections
Independent Life Skills (travel independently, express emotions, initiate conversations, pursue interests and hobbies)	<ul style="list-style-type: none"> • Takes metro, travel independently • Orders food and run exhibition for own bakery items • Consistently attended internship 5 days a week 	<ul style="list-style-type: none"> • Responsibilities at workplace, taking on new initiatives • Occasionally initiates conversation with acquaintances, unfamiliar people • Accommodates changes in plans while going out
Emotional Regulation and Identity Awareness (identify emotions, describe own likes and dislikes, become responsible, developed leadership and management skills)	<ul style="list-style-type: none"> • Identifies emotions (like anger) • Manages her emotions at workplace. Expressed how she has developed leadership and management skills which she employs at her workplace • Prefers festivals associated with own cultural identity 	<ul style="list-style-type: none"> • Leadership roles - assisting, managing tasks - contributed to self awareness and identity formation • Exposure to different cultures and ability to identify own likes and dislikes • Expresses feelings consistently with situations
Perspective Taking (have meaningful relations, take care of loved ones, understand other's point of views/situations/emotions)	<ul style="list-style-type: none"> • Can now recognise if her mother isn't feeling well and take responsibility for basic things like cooking. • Asked the interviewer about her interests, hobbies and routine. • Coordinate with individuals like food delivery partners over phone calls and pick-up places 	<ul style="list-style-type: none"> • Recognises others' emotional states and responds accordingly. • Volunteers to help, understands some cues/gestures, takes action accordingly • Can ask unfamiliar people about their interests • Still developing skills required to hold conversation

Table 3 *Therapy Participant Experience 2: Rishab*

	Participant's Reflections	Therapist's Reflections
Independent Life Skills	<ul style="list-style-type: none"> Moved to college, adjusted to a completely different environment and make new friends Carried out daily activities - cooking, laundry, grocery 	<ul style="list-style-type: none"> Adjusted in dorm and initiated interaction with peers Can manage daily tasks involving sequential action - cooking, laundry, schedule Perceives acquaintances as friends
Emotional Regulation and Identity Awareness	<ul style="list-style-type: none"> Awareness of obsessive interests relating to culture, ethnicity, language and public figures Aware about his sexual identity and neurodiversity identity - joined club/job Expresses difficulty in finding close friends 	<ul style="list-style-type: none"> Better expresses and understands feelings Has insight into own identity and growth Aware of own struggles and potential.
Perspective Taking	<ul style="list-style-type: none"> Making new friends, learning to talk to people in social situations. Thought changing accent would help interviewer to comprehend him better. Expressed interest in knowing about interviewer 	<ul style="list-style-type: none"> Engages in conversation asking about and following up on people's interests Identify differences in own and other's identity/background Reading different gestures or body cues still difficult

1.4 DISCUSSION

This study explores the therapeutic experience of two young adults with Autism by focusing on development in key areas of social cognition, including identity formation, perspective taking, emotional regulation. Semi-structured interviews offered a unique opportunity to listen to the voice of autistics that is not always represented in research. For example, Ananya shared, *"Now I can travel independently, I change two metros daily while coming to the centre and my parents also trust me enough to let me do everything by myself now"*. This statement demonstrates self-belief, confidence and family communication. These are new skills for Ananya who previously spoke with inaudible volume and reported family conflict (Khattar, et.

al 2022). The second participant, Rishab also shared insights, “*I used to find it really hard to even talk to people and now I am able to make conversations and able to make friends but making close friends is very hard for me*”. Here, Rishab shows his progress but also reveals self-awareness regarding the quality of his friendships.

These social cognition skills, as basic as they might appear, enable individuals to live fulfilling lives independently. These skills markedly enhance their ability to navigate through social situations, exercise caution where necessary, extend help where required or have casual conversation to gratify social needs. Both the therapists’ and the participants’ expressions reflected an ability to envision the future roles and actions in the lives of these individuals.

The fluidity of the Eye to I therapy® intervention model, specifically, its ability to adapt across online and offline phases, contributed significantly towards the development of these individuals with ASD. Therapy participants could form and maintain strong therapist-client bonds throughout the lifestyle changes associated with the Covid -19 Pandemic and independent developments such as going to work or moving countries. Additionally, the Eye to I focus on self awareness and identity recognition, emotional recognition and expression, executive functioning skills such as planning and sequencing further supported the development of social cognition in these individuals.

1.5 RECOMMENDATIONS/FUTURE IMPLICATIONS

The current study outlines the availability of resources which aid independent life skill development, perspective taking and identity formation in individuals with ASD. This opens doors to further investigation in the area of social cognition, with more participants and data in future. We intend to encourage the academic community to include qualitative data such as these interviews which reflect the voices of these individuals on the spectrum, as an attempt to increase the authenticity and validity of research work.

REFERENCES

- Atherton, G., Lummis, B., Day, S. X., & Cross, L. (2019). What am I thinking? Perspective-taking from the perspective of adolescents with autism. *Autism*, 23(5), 1186–1200. <https://doi.org/10.1177/1362361318793409>
- Cooper, K., Smith, L. G. E., & Russell, A. (2017, May 24). *Social Identity, self-esteem, and Mental Health in autism*. Wiley online library. Retrieved October 10, 2022, from <https://onlinelibrary.wiley.com/doi/abs/10.1002/ejsp.2297>
- Cooper, R., Cooper, K., Russell, A. J., & Smith, L. G. E. (2020, June 30). "I'm proud to be a little bit different": The effects of autistic individuals' perceptions of autism and autism social identity on their collective self-esteem - journal of autism and developmental disorders. SpringerLink. Retrieved October 10, 2022, from <https://link.springer.com/article/10.1007/s10803-020-04575-4>
- Cotugno, A. J. (2009, April 14). Social Competence and social skills training and intervention for children with autism spectrum disorders - journal of autism and developmental

- disorders. SpringerLink. Retrieved October 30, 2022, from <https://link.springer.com/article/10.1007/s10803-009-0741-4>
- Cresswell, L., & Cage, E. (2019, July). 'who am I?': An exploratory study of the relationships between identity, acculturation and mental health in autistic adolescents. *Journal of autism and developmental disorders*. Retrieved October 6, 2022, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6606666/>
- Geller, L. (2005). Emotional regulation and autism spectrum disorders. Asperger Center for Education and Training. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://aspergercenter.com/articles/Emotional-Regulation-and-Autism-Spectrum.pdf>
- Hobson, R. P., Chidambi, G., Lee, A., Meyer, J., Müller, U., Carpendale, J. I. M., & Racine, T. P. (2006). Foundations for self-awareness: An exploration through autism. *Monographs of the society for research in child development*, i-166.
- Huang, A. X., Hughes, T. L., Sutton, L. R., Lawrence, M., Chen, X., Ji, Z., & Zeleke, W. (1AD,January 1). *Understanding the self in individuals with autism spectrum disorders (ASD): A Review of Literature*. Frontiers. Retrieved October 10, 2022, from<https://www.frontiersin.org/articles/10.3389/fpsyg.2017.01422/full>
- Ioane, J., Knibbs, C., & Tudor, K. (2021). The challenge of security and accessibility: Critical perspectives on the rapid move to online therapies in the age of Covid-19. *Psychotherapy and Politics International*, 19(1). <https://doi.org/10.1002/ppi.1581>
- Khattar, Shivangi & Datta, Muskan & Alam, Farheen & Ansari, Samina & Jameel, Nadiya & Kaur, Manmeet & Gupta, Parul & Schuchert, Sara. (2022). Investigating the Effectiveness of Eye to I© Intervention in Online Format. *The International Journal of Indian Psychology*. 10. 10.25215/1002.010.
- Lord, C., Elsabbagh, M., Baird, G., & Veenstra-Vanderweele, J. (2018, August 2). *Autism spectrum disorder*. The Lancet. Retrieved October 6, 2022, from <https://www.sciencedirect.com/science/article/abs/pii/S0140673618311292>
- Morton, K., Ainsworth, B., Miller, S., Rice, C., Bostock, J., Denison-Day, J., Towler, L., Groot,J., Moore, M., Willcox, M., Chadborn, T., Amlot, R., Gold, N., Little, P., & Yardley, L. (2021). Adapting behavioral interventions for a changing public health context: A worked example of implementing a digital intervention during a global pandemic using rapid optimisation methods. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.668197>
- Nathalie, N. G. (2011). Chapter 13: Self-Regulation, Dysregulation, Emotion Regulation and Their Impact on Cognitive and Socio-Emotional Abilities in Children and Adolescents with Autism Spectrum Disorder . In T. Williams (Ed.), *Autism Spectrum Disorders From Genes to Environment* (pp. 244–247). essay, InTeach.
- Thompson, R. A. (1991, December). *Emotional regulation and emotional development - educational psychology review*. SpringerLink. Retrieved October 9, 2022, from <https://link.springer.com/article/10.1007/BF01319934>

Woodcock, K. A., Cheung, C., González Marx, D., & Mandy, W. (2019, March 16). *Social Decision Making in autistic adolescents: The role of theory of mind, executive functioning and Emotion Regulation - Journal of Autism and Developmental Disorders*. SpringerLink. Retrieved October 9, 2022, from <https://link.springer.com/article/10.1007/s10803-019-03975-5>

CHAPTER 9

The Journey of Teaching-Learning During COVID-19

Nasrin¹

¹*Department of Education, Aligarh Muslim University, Aligarh, India*

Abstract: The Covid-19 pandemic prompted significant changes in the education systems worldwide including third world countries. No doubt various nations attempted to provide online education breaking geographical barriers enabling access to education for all during the unparalleled time but number of problems was faced by both teachers and students. The article delves into the problems and challenges of online education adopted during the unprecedented period of COVID-19 pandemic in India. It also discusses the ICT initiatives taken by the Government of India to meet the sudden requirements of online education in the country. It was observed that online teaching-learning faced several challenges related to lack of face-to-face interaction, lack of digital tools, lack of infrastructure facilities and conducive environment at home, excessive screen time exposure and its ill effects, lack of teacher preparedness, problems of conducting examinations and evaluation. All the related aspects have been explained in the article with the help of review studies. It is concluded with a prediction that the experiences of online education during the COVID pandemic period will continue to shape the future of education by re-evaluation of traditional teaching and advocating blended learning models.

Keywords: *COVID-19; online learning; online pedagogy; digital tools; teacher preparedness*

1.1. INTRODUCTION

COVID-19, stemming from the novel coronavirus, emerged as a global health crisis, profoundly altering human well-being and societal norms. The main reasons behind gaining widespread attention are significant spread, high death rates, and challenges in vaccine development forcing governments worldwide to implement serious measures to combat the disease (Chaturvedi et al., 2020). Such efforts basically revolved around urging citizens to stay at home to break the chain of transmission. Although, the focus was on health care facilities initially but subsequent changes resulted in socio-economic setbacks. The resultant financial and social impacts of measures like social distancing have prompted significant policy shifts, especially in higher education, pushing for a transition to online modes of learning. Social distancing measures led to significant policy changes in higher education systems guiding a transition towards “online pivot” (George, 2020).

In the meantime, education sector in India underwent significant changes due to widespread closure of educational institutions adopting online teaching strategies for remote learning. Thus education got modified from face-to-face teaching process to online mode (Zimmerman, 2020). Though the teachers rapidly adapted to the digital mode of teaching, the students were affected badly as the shift posed challenges, especially for students lacking access to reliable internet devices. “In India, the education of more than 320 million students got affected due to various restrictions and the nationwide lockdown” (Khaliq et al. 2023). The digital divide remained a significant hurdle in ensuring equal access to education for all.

The article intends to discuss the problems and challenges faced during COVID-19 pandemic period and the initiatives taken by the Government of India to meet the changing educational needs for crisis management during pandemic.

1.2 EMPHASIS ON ONLINE TEACHING-LEARNING

Traditional teaching learning setting became untenable during pandemic period due to shutting down of institutions, prompting a swift transition to remote learning platforms as it was the only option (Martinez, 2020). Even though it was challenging, ensured continuity in education but also highlighted the adaptability and resilience of the academic community in the face of adversity. Significant pedagogical transformations transitioning from conventional classroom approaches to the trendy paradigm of learning was observed in India through various digital platforms like Zoom, Webex, Google Meet, Microsoft teams meeting etc. Academic gatherings and traditional seminars changed to webinars. Thus, virtual classrooms, Digital interactive platforms, and online repositories of educational resources, became the new norm. Earlier remote education and correspondence courses were associated with non-formal education only, but during Covid crisis, they proved that they could potentially supplant formal education systems. Several widely used online communication platforms hold the potential to profoundly influence and reshape the global education landscape in the post-COVID-19 era.

The pandemic situation compelled teachers to reimagining pedagogical practices. There was paradigm shift in the teaching strategies leading to design engaging and interactive online classes. Innovative approaches were followed by creative and enthusiastic teachers to maintain students' engagement, interactive assignments, and collaborative projects and by incorporating multimedia components. Both asynchronous and Synchronous mode of teaching and learning was observed digitally. The emphasis on asynchronous learning allowed students flexibility in accessing course materials, enabling them to pace their learning according to individual schedules. Tam and El-Azar (2020) opined that educational systems must incorporate resilience, ensuring their ability to withstand challenges. Additionally, three forthcoming trends in transformations are evident: a rise in educational innovations, strengthened collaborations between public and private educational sectors, and the persistent issue of the digital divide gap.

No doubt, unfreezing occurred during the pandemic period where educational institutions swiftly shifted to remote learning by incorporating online teaching strategies to continue education. This also led to experimentation with various teaching methods and tools. During the post pandemic period, institutionalizing and refining the changes occurred worldwide leading to 'Refreezing Stage'. Adaptations which are beneficial for long term are being incorporated into the evolving educational framework. Thus the pandemic accelerated the need for flexibility in education, prompting teachers institutions, and policymakers to embrace innovative methods involving information and communication technologies. This process of unfreezing and refreezing within education signifies a shift towards more dynamic educational system that can better respond to unforeseen challenges in the future. "There are a number of technologies available for online education but sometimes they create a lot of difficulties. These difficulties and problems associated with modern technology range from downloading errors, issues with installation, login problems, problems with audio and video, and so on" (Dhawan, 2020). Some of the problems faced during online teaching learning are discussed as follows:

1.2.1 Lack of Face-to-Face Interaction

Face-to-face interaction holds immense significance in various aspects of classroom activities. It is vital in promoting engagement and comprehension in teaching learning process. The real-time interaction in the classroom creates a conducive environment for asking questions, holding discussions, doubt clearance and conducting collaborative activities. On the other hand “students in online-only classes felt more disconnected from their peers and lecturers, more obliged to be self-directed in their studies, and less aided by their lecturer, than their lecturers believe them to be” (Otter et al., 2013). Non-verbal cues like body language and facial expressions enhance communication which is not possible in virtual classrooms. It fosters deeper connection between teacher and taught facilitating contributing effective learning among students. It also enables teachers to gauge students' understanding and adjust their teaching methods accordingly. Face-to-face interaction often nurtures social skills and helps students to build empathy. It also develop interpersonal relationships. Face-to-face meetings also promote trust and rapport between educator and students leading to more more meaningful connections than remote communication allows. Face-to-face interaction also fosters mental well-being by reducing feelings of isolation and loneliness. It also offers sense of belonging among students fostering emotional support which can reduce stress ,contributing to overall mental health. It may not be possible to achieve the above discussed aspects in Online interaction. The richness of face-to-face interaction offers a multi-dimensional experience to students that goes beyond words or images on a screen, creating lasting impressions and meaningful connections that significantly impact personal and educational spheres of life. Hence number of students faced problems due to lack of face to face interaction during COVID period.

1.2.2 Lack of Digital Tools

Lack of digital tools in learning posed significant challenges in educational landscape during pandemic period(Mathrani, Sarvesh & Umer , 2022) The digital divide widened as students without access to necessary tools like computers, tablets, or reliable internet faced obstacles in keeping pace with their digitally equipped counterparts. multiple children in a family sharing devices was also noticed. This creates inequalities in educational opportunities, limiting the ability of some students to fully engage with modern learning resources. Students from poor socio-economic status faced considerable difficulties without access to essential digital tools struggled to join online classes, access educational resources or submit assignments, This disparity impacted students' learning outcomes hindering academic achievement. Coordinated efforts from various stakeholders are required to addressing this issue. Recognizing the importance digital skills, efforts to mitigate the lack of digital tools in learning are vital to ensure equitable access to quality education and prepare learners for academic success.

1.2.3 Lack of Infrastructure Facilities and Conducive Environment at Home

The COVID-19 pandemic situation compelled for remote education of students at home posing significant challenges due to inadequate infrastructure and conducive learning environments. Many students belonging to marginalized sections of the society or rural areas, faced problems due to the absence of necessary infrastructure. “ 37% of households in India have one dwelling room, it would be a luxury for many to attend lectures in an undisturbed environment” (Kundu,2020). Limited access to electricity, internet connectivity, and lack of gadgets such as laptops, tablets or smart phones hindered them to engage in online learning creating disparities. The home environment also posed challenges for learning. Students

struggled with the problem of lack of space, shared spaces, noisy surroundings. All these factors created problems for accessing online classes or completing assignments in time. The pandemic underlines the importance of maintaining equitable access to facilities and conducive educational environments for all learners.

1.2.4 Excessive Screen Time Exposure and its Ill effects

Excessive screen time exposure during the pandemic has led to many adverse effects on both students and teachers impacting health and well-being. It affected physically, mentally and socially. Long term screen lead to eye strain, blurred vision accompanied with headaches leading to digital eye strain or computer vision syndrome. DES is an emerging public health threat and it is directly proportional to the duration of digital screen exposure (Bhattacharya et al., 2020). The investigator opined that it can disrupt sleep patterns due to exposure to blue light emitted by screens, affecting the quality and duration of sleep. Excessive screen time exposure also has been associated with stress, anxiety, depression and Agression (Rajkumar, 2020). Moreover prolonged exposure also affects attention spans particularly in children and adolescents. It also alters interpersonal interactions leading to feelings of disconnection and isolation. “Interventions to reduce distress and lifestyle modification along with diurnal practices to regulate screen time can potentially promote positive mental health while rejoicing in the inescapable digital use” (Pandya & Lodha , 2021).

1.2.5 Lack of Teacher preparedness

The helpless situation during pandemic period demanded immense readiness and adaptability from the teachers globally. Sudden shift to online teaching required teachers to restructure their teaching methodologies by embracing new technologies, Many teachers found struggling with digital tools facing a steep learning curve in integrating technology into their lessons. Universities and Higher Educational Institutions (HEIs) worldwide found providing extensive training and support to empower the educators to confidently navigate the digital landscape. Several professional development programs and resources were provided for faculty members. Webinars, Training sessions, and online courses were offered to enhance teachers' digital literacy, equipping them with the necessary skills to effectively conduct remote classes. Inspite of several efforts widened gap exists between faculty members who quickly adapted to the new teaching environment and those who struggled to transition.

The workload for teachers increased significantly and the transition to online teaching often meant longer hours spent preparing study materials, power point presentations, delivering online lessons, and providing individualized support to students. It was also expected from teachers to redesign their curriculum and instructional methods to suit the digital format. Some went for asynchronous mode and some other teachers opted synchronous mode of teaching. However empowered teachers succeeded to create interactive content and found innovative ways to maintain student engagement and participation. Such teachers also adapted assessments for virtual settings, Educators also worked as mentors and sources of emotional support by supporting students dealing with isolation, anxiety, and varying home environments.

1.3 PROBLEM OF CONDUCTING EXAMINATIONS AND EVALUATION

The traditional mode of assessment that heavily dependent on in-person exams, faced unexpected disruptions due to social distancing and shift to remote learning. online assessments were carried out that raised concerns about fairness and integrity(Chatterjee, 2022).

Monitoring students during online exams to prevent cheating posed challenges for teachers leading to uncertainties. Thus preventing academic dishonesty became intricate task for teachers in online settings. Institutions adapted assessment methods that included assignments, open-book assessments, power point presentations, online viva etc. However designing and implementing alternative assessment methods required creativity and proper planning. Educators had to recalibrate their approach ensure that the assessments were fair, objective and comprehensive. Disparities existed as students from rural areas and poor socio-economic status with limited access to gadgets and fast internet connections faced problems during online examinations. Concerns were raised regarding reliability and validity of online exams. Educators faced problem in evaluating the students' progress accurately.

1.4 ICT INITIATIVES OF THE GOVERNMENT OF INDIA DURING COVID PANDEMIC PERIOD

The Government of India, like others worldwide, faced unexpected challenges during the COVID pandemic, it utilized the existing e-learning infrastructure as a foundation and adapted it to suit the changing circumstances and devised plans to meet the emerging educational needs (Singh et al., 2021). The Government of India launched several ICT (Information and Communications Technology) initiatives to support education during the COVID-19 pandemic period.

- (1) DIKSHA (Digital Infrastructure for Knowledge Sharing), A digital platform for school education, introduced by the National Council of Educational Research and Training (NCERT), and the Ministry of Education, Government of India in 2017 was strengthened to provide e-learning contents especially for teachers. Interactive modules, courses, quizzes, and other educational materials across grades and subjects. (Source : <https://diksha.gov.in/about/>)
- (2) NISHTHA 1.0 (National Initiatives for School Heads and Teachers' Holistic Advancement) catering to elementary grades, was introduced online via DIKSHA portal. Subsequent versions, NISHTHA 2.0 & 3.0, focus on enhancing secondary education and foundational literacy and numeracy. Alongside NISHTHA, various States and Union Territories have devised their individual capacity-building programs.
- (3) SWAYAM: SWAYAM (Study Webs of Active Learning for Young Aspiring Minds), is an online portal that offers diverse range of courses to learners (school subjects to higher education) across the nation. It was launched in 2017 and played vital role in empowering students and teachers to update their knowledge during the period of COVID outbreak. (Source: <https://swayam.gov.in/>)
- (4) ARPIT: ARPIT is the Annual Refresher Programme in Teaching, an initiative of Government of India for professional development of faculty members. It was Launched by the Ministry of Education in 2018. Lakhs of faculty members got updated and upgraded their teaching skills and pedagogical techniques in various disciplines. (Source: <https://pib.gov.in/PressReleasePage.aspx?PRID=1607331>). Several training modules developed by experts from renowned institutions and universities are provided during the course via online portal.
- (5) SWAYAM PRABHA: SWAYAM PRABHA, a group of DTH channels, broadcasts educational content for free to reach students with limited internet access. "MHRD dedicated thirty-two (32) channels to broadcast high-quality educational programs. It provides separate channels for school education and higher education. The initiative is still undergoing development and upgrading as the content & topics are expected to be

organized by chapter and topic-wise in the future to ensure asynchronous usage by everyone anywhere, anytime” (Singh et al., 2021)

- (6) National Digital Library of India (NDLI): The NDL was launched in 2018 under National Mission on Education through Information and Communication Technology to provide access to vast repository of academic resources, including e-books, articles, theses, manuscripts, and multimedia content, fostering e-learning and research. According to PIB, Ministry of Human Resource Development, Government of India (2018), NDLI provides quality educational resources to teachers and students, has 1.7 Crore content from more than 160 sources, in over 200 languages.
- (7) E-pathshala: E-pathshala, an initiative of NCERT to enrich students, teachers and parents played an important role during the period of COVID crisis by providing digital textbooks, audio, video, and other e-learning materials. (Source: <https://epathshala.nic.in/>).
- (8) ICT Training for Teachers: The government of India conducted several training programs and workshops through Academic Staff colleges in various universities to empower teachers with the necessary digital skills and tools to conduct online classes effectively.
- (9) Online Classes and Webinars: Various educational institutions, with government support, transitioned to online classes and conducted webinars to ensure continuity in education.

The above discussed initiatives of Government of India aimed to mitigate the impact of institution closures by leveraging technology to facilitate continued learning, provide access to educational resources, and support both students and teachers during the challenging times of the pandemic.

1.5 CONCLUSION

There has been an unprecedented shift to online teaching and learning during the period of COVID-19 pandemic demanding rapid transformation in education worldwide including India. Several online platforms enabled continuity in learning, offering lifeline to teachers and students. Several challenges like Unequal access to online education, digital divide, Lack of teacher preparation, health issues etc. were faced. However the crisis period witnessed the potential of technology and Artificial Intelligence in democratizing education and fostering inclusive learning environments. It helped to provide Education by breaking down geographical barriers during social distancing. Furthermore, it emphasized the importance of personalized learning approaches, innovation in teaching methodologies, and the integration of technology in pedagogy. The lessons learnt from the COVID pandemic period will continue to shape the future of education by re-evaluation of traditional teaching and advocating blended learning models.

REFERENCES

- Bhatia,P & Joseph,A.A. (2023) Teaching during COVID- 19 pandemic in India: an interpretive phenomenological analysis of faculty's perceptions and experiences, *Journal of Further and Higher Education*, 47:7, 925-940. Available at <https://www.tandfonline.com/doi/epdf/10.1080/0309877X.2023.2203317?needAccess=true>
- Bhattacharya, Sudip. and Saleem, Sheikh. and Singh, Amarjeet (2020). Digital eye strain in the era of COVID-19 pandemic: An emerging public health threat. *Indian Journal of Ophthalmology*,68(8), 1709-1710. doi: 10.4103/ijo.IJO_1782_20
- Chatterjee,S. 2022. Online Education and Examination System in India During COVID-19 Pandemic: An Analysis. *Journal of Emerging Technologies and Innovative Research*,9(5), 509-518.
- Chaturvedi, S., Gowda, K., Chowdari, L., and Anjum, A., and Begum, A. (2020). Directive Government policy and process for the people amidst COVID-19 .Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3755221
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*, 49 (1), 5–22. Available at <https://journals.sagepub.com/doi/pdf/10.1177/0047239520934018>
- George, M. L. (2020). Effective teaching and examination strategies for undergraduate learning during COVID-19 school restrictions. *Journal of Educational Technology Systems*, 49 (1), 23–48. doi:10.1177/0047239520934017
- Khaliq N, Ahmed SF, Geelani S, Khaliq F.(2023). Transition to online teaching during COVID-19 pandemic: Perspective of higher education teachers from India. *Indian Journal of Physiology and Pharmacology*, 67:141-6.
- Kundu,P (2020).Digital Divide. Available at <https://scroll.in/article/960939/indian-education-cant-go-online-only-8-of-homes-with-school-children-have-computer-with-net-link>
- Martinez, J. (2020). Take this pandemic moment to improve education. *EduSource*. Available at <https://edsource.org/2020/take-this-pandemic-moment-to-improveeducation/633500>.
- Mathrani,A., Sarvesh,T., & Umer,R. (2022). Digital divide framework: online learning in developing countries during the COVID-19 lockdown, *Globalisation, Societies and Education*, 20:5, 625-640.
- Otter, R. R., Seipel, S., Graeff, T., Alexander, B., Boraiko, C., Gray, J.,... Sadler, K., et al. (2013). Comparing student and faculty perceptions of online and traditional courses. *Internet and Higher Education*. 19, 27–35. doi: 10.1016/j.iheduc.2013.08.001
- Pandya, A & Lodha, P. (2021) Social connectedness, excessive screen time during COVID-19 and mental health: a review of current evidence. *Frontiers in Human Dynamics*, 3:684137. doi: 10.3389/fhumd.2021.684137
- PIB, Ministry of Human Resource Development, Government of India (2018). Available at <https://pib.gov.in/newsite/PrintRelease.aspx?relid=180048>

- Rajkumar, R. P. (2020). COVID and Mental Health: A review of the existing literature. *Asian Journal of Psychiatry*. 52, 102066. doi:10.1016/j.ajp.2020.102066
- Singh, M., Adebayo, S.O., Saini, M. et al.(2021). Indian government E-learning initiatives in response to COVID-19 crisis: A case study on online learning in Indian higher education system. *Education and Information Technologies*, 26, 7569–7607 .
<https://doi.org/10.1007/s10639-021-10585-1>
- Tam, G., & El-Azar, D. (3). Ways the coronavirus pandemic could reshape education. In World Economic Forum (pp. 1-5).
- Zimmerman, J. (2020). Coronavirus and the Great Online-Learning Experiment. The Chronicle of Higher Education. Available at: <https://www.chronicle.com/article/Coronavirusthe-Great/248216>

CHAPTER 10

A Comparative Study of Stress, Self-Efficacy and Mental Health Between Medical and Nursing Interns

Apoorva Choudhary¹ & Ms. Alvis Keisham¹

¹Amity University, Jaipur, India

Abstract: Stress has become an integral part of human life, and in the realm of academics, it remains unavoidable for students, exerting its influence on their performance in various academic activities. Academic stress plays a significant role in shaping the mental health of students. Conversely, the level of self-efficacy a student possesses plays a crucial role in their academic performance. In this particular study, the researchers aimed to explore the association among stress, self-efficacy, and mental health within medical and nursing interns in India. The study involved 100 medical interns and 100 nursing interns, all falling within the age range of 23 to 27 years. The research sample was collected using the snowball sampling technique from medical and nursing universities. To investigate the relationship between stress, self-efficacy, and mental health, the researchers administered the Perceived Stress Scale, Self-Efficacy Scale, and General Health Questionnaire-12. Utilizing SPSS version 24.0 for data analysis, descriptive statistics, correlation analysis, and paired samples t-test were conducted. The results of the correlation analysis revealed a negative relationship between stress and mental health, as well as stress and self-efficacy, for both medical and nursing interns. Notably, a positive association was observed between self-efficacy and mental health among nursing interns. Upon comparing medical and nursing interns, the paired sample t-test showed significant differences. Specifically, medical interns experienced higher levels of stress compared to their nursing counterparts. Additionally, medical interns reported experiencing greater pressure on their mental health than nursing interns. Conversely, nursing interns exhibited higher levels of self-efficacy compared to their medical counterparts. These findings emphasize the importance of addressing stress and cultivating self-efficacy among medical and nursing students to promote their overall well-being and academic performance. By understanding these factors, educational institutions and support systems can better assist students in navigating their academic journey while prioritizing their mental health.

Keywords: *Stress, Self- efficacy, Mental Health*

1.1. INTRODUCTION

Stress refers to the feeling of tension, whether physical or emotional, that arises from various events or thoughts causing emotions such as anger, nervousness, or frustration. It is the body's reaction to challenges or demands and can have both positive and negative effects. While short-term stress can be beneficial, helping to avoid danger or meet deadlines, prolonged stress may have detrimental effects on one's health (Cool & Zappetti, 2019).

Mental health, on the other hand, is characterized by the ability to balance one's desires, emotions, ambitions, and ideas in daily life. Individuals with good mental health can effectively communicate with others and cope with stressful situations. Mental health is associated with the absence of mental illnesses and is characterized by life satisfaction and enjoyment.

One of the factors influencing mental health is self-efficacy. Self-efficacy plays a significant role in various aspects of life and health, affecting people's thought patterns, decision-making, and interpersonal interactions (Maddux, 2002). It refers to the belief in one's ability to carry out actions necessary to handle future situations (Bandura, 1997).

Research by Robert et al. (1992) has shown an association between mental health and self-efficacy. Moreover, the World Health Organization (2001) emphasizes that self-efficacy is essential for developing and maintaining overall well-being.

In summary, stress, mental health, and self-efficacy are interconnected, with self-efficacy playing a significant role in determining mental well-being. A person's belief in their abilities affects how they handle stress and navigate challenges in life, ultimately influencing their overall mental health and well-being.

Stress is widely recognized as a risk factor for poor mental health. However, not everyone experiencing stress develops distressing symptoms. Researchers have been increasingly focusing on factors that may mediate the relationship between stress and mental health, such as positive emotions and protective factors, which have shown significant contributions to improving mental well-being. Despite this growing body of research, there remains a lack of literature exploring the association among these three variables.

The prevalence of stress among medical and nursing students is a cause for concern, and it has been increasing in recent decades. Numerous studies worldwide have examined this issue and identified significant stress levels among these students. The stress they experience can lead to notable physical, mental, and emotional impairments, affecting their overall well-being and academic performance. Medical and nursing students face unique academic challenges that may make them more susceptible to mental health issues like stress and anxiety compared to other university students.

While many quantitative studies have estimated the rate of stressed medical students, only a few have explored this issue from the perspective of the students themselves and investigated the impact of stress on their health. Therefore, the present study was designed to fill this gap and explore the association between stress, self-efficacy, and mental health among medical and nursing interns.

1.2 MATERIALS AND METHODS

1.2.1 AIM

The aim of the study is to explore the association among stress, self-efficacy and mental health between nursing and medical interns in India.

1.2.2 OBJECTIVES

The objectives of the study are:

- To study the association among stress, self-efficacy and mental health in medical interns.
- To study the association among stress, self-efficacy and mental health in nursing interns.
- To assess the impact of self-efficacy on stress and mental health in medical interns.
- To assess the impact of self-efficacy on stress and mental health in nursing interns.

- To evaluate the difference in the stress between medical and nursing interns.
- To evaluate the difference in the self-efficacy between medical and nursing interns.
- To evaluate the difference in the mental health between medical and nursing interns.

1.2.3 HYPOTHESES:

The hypotheses of the research study is:

- H1 : Stress has negative effect on self- efficacy.
- H2 : Stress has negative effect on Mental Health.
- H3 : Self- efficacy has positive effect on Mental Health.
- H4: Medical interns will have high levels of stress than nursing interns.
- H5: Medical interns will score more on Mental Health than nursing interns.
- H6: Nursing interns will score better than medical interns in Self- efficacy.

1.3 METHODOLOGY:

1.3.1 STUDY DESIGN

A comparative correlational study design was used to explore the association among stress, self-efficacy and mental health between medical and nursing interns in India.

1.3.2 SAMPLE

Sample of the study consisted of 200 interns; 100 medical interns and 100 nursing interns, the age range was between 23 to 27 years; the sample was collected by using snowball technique from medical university and nursing colleges..

1.3.3 TOOLS:

Sociodemographic details: A semi structured performa was designed by the investigator to collect the socio-demographic details.

Perceived stress scale: The Perceived Stress Scale- 10 (PSS-10) is a classic stress assessment instrument developed by Sheldon Cohen. The Cronbach's alpha for PSS-10 is 0.78.

Self-efficacy scale: The Self-efficacy scale used in the study was developed and standardized by Dr. G. P. Mathur and Dr. Raj Kumar Bhatnagar. To assess the reliability of the scale, a test-retest method was employed on a sample of 600 individuals, consisting of 300 males and 300 females. The test-retest reliability coefficients were found to be within the range of 0.73 to 0.81 for males and 0.79 to 0.86 for females.

General Health Questionnaire-12 (GHQ-12): It is a brief questionnaire that screens for minor psychiatric conditions in the general population. Reliability coefficients have ranged from 0.78 to 0.95 in various studies.

1.3.4 PROCEDURE

The duration of the study was from April 2021 to July 2021. The study was done with keeping in mind the need of the hour. The subject was discussed and after relevant research and approval from university authorities, the study was conducted.

1.3.5 STATISTICAL ANALYSIS

The data collected for the study was analyzed using the Statistical Package for Social Sciences (SPSS version 24.0). Descriptive statistics were utilized to calculate the demographic variables and relevant data. To examine the relationship between stress, self-efficacy, and mental health among medical and nursing interns, correlation analysis was employed. Additionally, paired samples t-test was utilized to identify any differences in stress, mental health, and self-efficacy between medical and nursing interns.

1.4 RESULTS

The present study is aimed to explore the association among stress, self-efficacy and mental health between nursing and medical interns in India. It tries to assess the impact of self efficacy on stress and mental health in medical and nursing interns. It tries to evaluate the difference in stress, self efficacy and mental health in medical and nursing interns. For this purpose, medical and nursing interns between the age group 23-27 were included in the sample. A sample of 211 individuals was collected. Forms of 11 individuals were rejected keeping in mind the exclusion criteria. 11 of the forms belong to individuals of age below 23 or above 27. With keeping in mind, the inclusion criteria, a total sample of 200 was taken for further statistical analysis.

Table 1: Mean and Standard Deviation of Stress, Self -Efficacy and Mental Health of Medical and Nursing interns

<i>Mean and Standard Deviation of Medical Interns</i>		
VARIABLES	MEAN	STANDARD DEVIATION
Stress	24.74	5.30
Self- efficacy	66.33	3.57
Mental Health	18.54	3.71
<i>Mean and Standard Deviation of Nursing Interns</i>		
Stress	21.44	4.04
Self-efficacy	67.80	3.22
Mental Health	17.18	3.23

Table 2: Correlation analysis of Stress with Mental Health and Self- Efficacy in Medical Interns and Nursing Interns

	STRESS (Medical Interns)	STRESS (Nursing Interns)
SELF-EFFICACY	-.104*	-.104*
MENTAL HEALTH	-.467**	-.254*

* Correlation is significant at 0.05 level.

** Correlation is significant at 0.01 level (2- tailed).

According to table 2, stress has a negative and significant relationship with self-efficacy and mental health in medical interns as well as nursing interns.

Table 3: Correlation analysis of Self-Efficacy with Mental Health in Medical Interns and Nursing Interns

	MENTAL HEALTH (Medical Interns)	MENTAL HEALTH (Nursing Interns)
Self-Efficacy	.202*	.168*

* Correlation is significant at 0.05 level.

According to table 3, self-efficacy has a positive and significant relationship with mental health in medical interns and nursing interns.

Table 4: Paired sample t-test of stress, mental health and self-efficacy between medical and nursing interns

	Paired Differences					t	Df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
<i>Stress (medical)- Stress (nursing)</i>	3.300	7.266	.727	1.858	4.742	4.542	99	.000
<i>Mental Health (medical) - Mental Health (nursing)</i>	1.360	4.881	.488	.391	2.329	2.786	99	.006
<i>Self-Efficacy (medical) – Self-efficacy (nursing)</i>	-1.470	4.629	.463	-2.388	-.552	-3.176	99	.002

Table 4 indicates that medical interns have more stress than nursing interns. It tells that medical interns have more pressure on their mental health than nursing interns and nursing interns have more self-efficacy than medical interns.

1.5 DISCUSSION

Student life can be challenging, and some students may experience mental discomfort as a result. This mental discomfort can have an impact on academic achievement and also pose a significant public health challenge. University students, in general, face various social and psychological demands, which can make them susceptible to engaging in risky behaviors. Consequently, several social and psychological factors contribute to stress among university students. In particular, medical and nursing education is considered stressful due to its high academic requirements, clinical demands, and complex challenges in the clinical setting. This can lead medical and nursing students to spend more time in clinical placements and take on multiple roles, adding to their stress.

The present study aimed to explore the relationship among stress, self-efficacy, and mental health between medical and nursing interns. Various objectives were set to investigate the association between stress, self-efficacy, and mental health in nursing and medical interns in India.

The study's findings analyzed the correlation between stress and self-efficacy in medical and nursing interns. The results indicated that there is a significant negative relationship between stress and self-efficacy in both medical and nursing interns, thus supporting the hypothesis.

Several research studies consistently demonstrate moderate to strong negative correlations between self-efficacy and stress among college students (Gigliotti & Huff, 1995; Hackett et al., 1992; Solberg et al., 1993; Solberg & Villar-real, 1997).

In a study by Shehadeh et al. (2020) investigating academic stress and self-efficacy as predictors of academic satisfaction among nursing students, it was found that nursing students had moderate levels of academic self-efficacy, high levels of academic stress, and moderate levels of satisfaction. There was a positive correlation between students' grade point average and academic stress and self-efficacy, but a negative correlation with academic satisfaction.

The results also examined the relationship between stress and mental health in medical and nursing interns. The results indicated that stress has a significant negative relationship with mental health in both medical and nursing interns.

According to one research study, over half of the students rated their overall stress as moderate or severe. Students' mental health concerns were most strongly linked to stressful exam experiences and interactions with faculty (Backović et al., 2013).

Schönfeld et al. (2016) conducted a study to investigate the impact of daily stress on positive and negative mental health, with self-efficacy acting as a mediator for these effects. The results indicated that self-efficacy plays a significant mediating role between daily stressors and mental health, with stronger effects on positive mental health compared to negative mental health. In essence, self-efficacy acts as a protective buffer against daily stress.

Regarding the relationship between self-efficacy and mental health in medical and nursing interns, the findings showed a positive and significant correlation between self-efficacy and mental health in both groups of interns, supporting the hypothesis.

Research conducted by Grøtan et al. (2019) revealed that students reporting severe mental health problems were four times more likely to have low academic self-efficacy compared to those with minimal or moderate symptoms of mental health problems.

Rivas and Fernandez (1995) found that self-efficacy plays a crucial role in maintaining adolescent's mental health, specifically associated with the avoidance of sadness and emotional regulation.

The study explored the difference in stress levels between medical and nursing interns, and the results indicated that medical interns experience significantly higher stress compared to nursing interns, confirming the hypothesis.

Singh et al. (2011) discovered that nursing interns generally experienced moderate to severe levels of stress during clinical training, which aligns with national and international research showing that nursing students are susceptible to stress.

Schwartzky (1998) suggested that nursing education might be less stressful than perceived, especially when compared to a liberal arts education, based on the research findings. The study also examined the difference in mental health between medical and nursing interns, and the results revealed that medical interns face significantly more pressure on their mental health compared to nursing interns, supporting the hypothesis.

Research indicates that mental health difficulties affect a considerable number of medical students, with certain subpopulations being more vulnerable to depression, such as preclinical and home-staying students (Cuttilan et al., 2016).

Analyzing the difference in self-efficacy between medical and nursing interns, the study found a significant difference, with nursing interns having higher levels of self-efficacy than medical interns, thereby confirming the hypothesis.

The study's findings indicated that self-efficacy expectations are positively associated with positive attitudes and stress-reduction strategies but negatively related to psychological conditions, self-isolation, and emotional acceptance or aversion (Pärto, 2011).

REFERENCES

- Backović, D.V., Maksimović, M., Davidović, D., Zivojinović, J.I., & Stevanović, D., (2013). Stress and mental health among medical students. *Srpski arhiv za celokupno lekarstvo*, 141(11-12):780-4. doi: [10.2298/sarh1312780b](https://doi.org/10.2298/sarh1312780b).
- Bandura, A., (1997). Self-Efficacy in Changing Societies. *Cambridge University Press*.
- Carter, E. (1982). Stress in nursing students. *Nurse outlook*, 30(4), 248-252.
- Cool, J., & Zappetti, D. (2019). The physiology of stress. *Medical student well-being*, pp.1-15.
- Cuttilan, A.N., Sayampanathan, A.A., & Chun-Man Ho, R., (2016). Mental health issues amongst medical students in Asia: a systematic review [2000–2015]. *Annals of translational medicine*, 4(4): 72.
- Gigliotti, R. J., & Huff, H. K. (1995). Role-related conflicts, strains and stresses of older-adult college students. *Sociological Focus*, 28(3): 329–342.
- Grøtan, K., Sund, E.R & Bjerkeset, O., (2019). Mental Health, Academic Self-Efficacy and Study Progress among College Students – The SHoT Study, Norway. *Frontiers psychology*, 10: 45.
- Gupta, S., Choudhury, S., Das, M., Mondol, A., & Pradhan, R., (2015). Factors causing stress among students of a medical college in Kolkata, India. *Education health*, 28(1):92-5.
- Hackett, G., Betz, N. E., Casas, J. M., & Rocha-Singh, I. A., (1992). Gender, ethnicity, and social cognitive factors predicting the academic achievement of students in engineering. *Journal of Counseling Psychology*, 39(4): 527–538.
- Maddux, J. E., & Meier, L. J. (1995). Self-efficacy and depression. *Self-Efficacy, adaptation, and adjustment*, pp. 143-169.
- Parto, M. (2011). Problem solving, self-efficacy, and mental health in adolescents: Assessing the mediating role of assertiveness. *Procedia -Social and Behavioral Sciences*, 30, 644-648.
- Rivas, R.M., & Fernandez, P. (1995). Self-esteem and value of health as determinants of adolescent health behavior. *Journal of Adolescent Health*, 16, 60-63.
- Schönfeld, P., Brailovskaia, J., Bieda, A., Zhang, X.C., & Margraf, J., (2016). The effects of daily stress on positive and negative mental health: Mediation through self-efficacy. *International Journal of Clinical Health Psychology*, 16(1):1–10.

- Shehadeh, J., Hamdan-Mansour, A.M., Halasa, S.N., Hani, M.H.B., Nabolsi, M.M., Thultheen, I., & Nassar, O.S., (2020). Academic Stress and Self-Efficacy as Predictors of Academic Satisfaction among Nursing Students. *The open nursing journal*, vol.14, pp: 92-99.
- Singh, C., Sharma, S., & Sharma, R.K., (2011). Level of stress and coping strategies used by nursing interns. *Nursing and Midwifery Research Journal*, 7(4): 152-60.
- Solberg, V. S., Hale, J.B., Villarreal, P., & Kavanagh, J., (1993). Development of the college stress inventory for use with Hispanic populations: A confirmatory analytic approach. *Hispanic Journal of Behavioral Sciences*, 15(4): 490–497.
- Solberg, V. S., & Villarreal, P. (1997). Examination of self-efficacy, social support, and stress as predictors of psychological and physical distress among Hispanic college students. *Hispanic Journal of Behavioral Sciences*, 19(2): 182–201.
- Swarzky, J., (1998). Understanding nursing students. *Nursing education today*, 18(2), 108-115
- World Health Organization. (2013). Mental health action plan 2013-2020. Retrieved from: http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf.
- Yamashita, K., Saito, M., & Takao, T., (2012). Stress and coping styles in Japanese nursing students. *International Journal of Nursing Practice*, 18(5), pp: 489-496.

CHAPTER 11

Mediating Effect of Mindfulness on Sense of Coherence and Perceived Stress

Yogeshwari Udawat¹ & Ayushi Tyagi¹

¹IIS Deemed to be University Jaipur, Jaipur, India

Abstract: The purpose of this research is to examine whether mindfulness may act as a moderator between stress and mental cohesiveness. There were 110 participants, 110 men and 110 girls, all between the ages of 25 and 40. Three scales were used: the Perceived Stress Scale, the Sense of Coherence Scale, and the Five Facets of Mindfulness Questionnaire. Descriptive statistics, as well as regression and correlation using SPSS and the Sobel test for mediating relationships, were used. The findings pointed to a connection between mindfulness and emotional stability, mental clarity, and overall well-being. Furthermore, mindfulness acts as a moderator between stress and emotional stability. Studies on the effects of mindfulness on mental health have shown several positive outcomes, including reductions in stress, sadness, worry, and emotional reactivity. Mindfulness has been demonstrated to improve mental health, happiness, and focus.

Keywords: *Mindfulness, Sense of coherence and Perceived stress*

1.1. INTRODUCTION

1.1.1. MINDFULNESS

1.1.1.1. *THE ANTIDOTE FOR MINDLESSNESS IS MINDFULNESS.*

Mindlessness is the polar opposite of mindfulness, as shown in words like "the lights are on, but no one is home" and "going through the motions, but my heart isn't in it." "Mindlessness in this context does not imply insanity or recklessness, though failing to pay attention to what is in front of you can certainly lead to trouble. A condition of conscious knowledge of what is going on in the present moment is referred to as mindlessness. It's a condition that's "controlled by rule and routine" rather than what's going on "right now." (langes 2002). A major feature of mindfulness, according to Brown and Ryan (2003), is an open and repave, present-centred attention and awareness that is pre reflective and non-judgmental. Focusing on the here-and-now, rather than ruminating on the past or entertaining fears and wishful thinking about the future, is what mindfulness entails.

Second, while mindfulness can be used for self-analysis, it is geared more toward watching than assessing the self. In this way, increasing mindfulness is like increasing the sensitivity of a radar system that is already working.

1.1.1.2. Definition of mindfulness

Mindfulness means focusing on the here-and-now, rather than nominating about the past, or entertaining anxieties and wishful thinking about the future. This means living in the present-not for the present.

1.1.2. SENCE OF COHERENCE

1.1.2.1. What is sense of coherence?

According to Harvard Health Publications, the Sense of Coherence Scale (SOC) is a tool for assessing an individual's ability to draw upon internal and external resources to improve their health status in the face of adversity. To explain why some individuals, feel ill while others don't when stress, Aaron Antonovsky came up with the phrase "sense of coherence" (SOC) in 1979. A sense of clarity or intelligibility, i.e., the ability to thought and communicate oneself in a consistent and clear manner. SOC, or sense of coherence, is an optimistic feeling of overseeing one's life. The SOC has three main components:

A cognitive feature known as "**comprehensibility**" measures how easily one can make sense of one's own thoughts and the thoughts of others (Eriksson & Mittelmark, 2017). One behavioural factor is how much we believe we have the means to deal with the situation. Then, we may employ these tools to cope with the barrage of stimuli we experience daily. A sense of emotional meaning in one's life is fundamental to what psychologist's call "**meaningfulness**," a motivating factor. This may also be relevant when we must deal with a difficult situation (Eriksson and Mittelmark, 2017).

1.1.2.2. Definition

The degree to which one feels confident that the stimuli derived from one's internal and external environments in the course of living are structured, predictable, and explicable (comprehensibility); that one has the resources necessary to meet the demands posed by these stimuli (manageability); and that these demands are challenges that are worthwhile of investment (SOC) is a global orientation (Antonovsky, 1987). The ability to tell a clear and easy-to-follow story about oneself. The sense of coherence is thought to protect physical and mental health from the negative effects of stress. (Aaron Antonovsky, 1923–1994).

1.2 PERCEIVED STRESS

Stress is your body's response to a change that necessitates a reaction. Physical, mental, or emotional changes might occur as a result of your surroundings, your body, or your thoughts. Stress can be caused by a variety of factors, including:

- (1) Major life upheavals and upheaval.
- (2) A lack of command over critical issues.
- (3) There's either too much or not enough work.

All of this is based on facts. When you have too much work to complete and can't keep up with your responsibilities, you're experiencing true stress. Stress is not the same as perceived stress. It's more about your sense of powerlessness and unpredictability than it is about the real difficulties.

A person's feelings or notions about the amount of stress they are experiencing at any one moment or over any given period of time are what are referred to as their perceived stress levels. Perceived stress may be caused by a number of variables, including feelings about the unpredictability and uncontrollability of one's life, the frequency with which one must deal with irritating difficulties, the amount of change that is happening in one's life, and confidence in one's ability to cope with issues or challenges. It does not evaluate the kind of stressful events that have happened in a person's life or the frequency with which they have occurred; rather, it evaluates how a person feels about how stressful their life is in general and how well they are able to deal with it. People may go through similar traumatic experiences in their lives, but each person's personality, level of coping tools, and level of support might cause them to evaluate the effect or severity of these experiences differently.

1.3 METHODS

1.3.1 Objectives:

- (1) Examining the connection between attentive awareness and emotional well-being.
- (2) This study aims to investigate the connection between mindfulness and internal consistency.
- (3) To explore the relationship between perceived stress and sense of coherence.
- (4) To find the mediation effect of mindfulness on perceived stress and sense of coherence.

1.3.2 Hypotheses Null

- (1) There is no correlation between being aware and feeling less stressed.
- (2) The perception of tension and the feeling of unity will be unrelated.
- (3) There will be no mediating effect of mindfulness on perceived stress and sense of coherence.

1.3.3 Alternative hypotheses

- (1) There will be a relationship between mindfulness and sense of coherence.

1.3.4 Procedure

The prerequisite of the study was to decide upon the same group and size i.e male and female population aged between 25-40 years.

- (1) The Google form was created that was filled by the selected sample. There were four sections, one section was comprised of demographic details and other three sections consisted of three questionnaires.
- (2) The questionnaires were based on Mindfulness, Sense of coherence and perceived stress which were presented respectively.

1.3.4.01 *Sample*

Male and female population aged between 25-40 years.

1.3.4.02 *Inclusion criteria*

Males and females of 25-40 years.

1.3.4.03 *Exclusion criteria*

People who do not fall under 25-40 years of age are excluded

1.3.5 Research design

1.3.5.01 *Tools used*

Five facet mindfulness questionnaire –Baer developed the 15-item FFMQ (FFMQ- 15), which comprises three items for each facet. Items from the FFMQ-39 were chosen for each facet based on their loadings and to maintain the variety of content for each facet.

Reliability- Good internal consistency with alpha coefficient ranging from 0.75 0.91. Validity- Construct validity

Perceived stress scale (PSS-10) –The PSS-10, or the Perceived Stress Scale, is a time- tested method for measuring emotional strain. Although it was first introduced in 1983, the instrument is still often used to assess the emotional and psychological impact of a variety of scenarios. This scale contains questions on how you have been feeling and thinking during the last month. You'll be asked to rate how frequently you felt or thought each of the following in each scenario.

Reliability-good internal consistency reliability $\alpha = .78$. Validity-adequate convergent validity

Sense of coherence scale–Antonovsky developed the SOC scale to evaluate the internal sense of unity. The three components of the condensed SOC scale are the number of items in each category (five for comprehensibility, four for manageability, and four for meaningfulness). Respondents express their level of agreement or disagreement on a 7- category semantic difference scale with two anchoring replies according to the content of each item. Before summing the overall score, five items (1, 2, 3, 5, and 7) are reversed. Reliability- Cronbach's alpha ranges from 0.70-0.92. Validity- Criterion validity

1.3.6 Statistical tools

- (1) Descriptive statics
- (2) Correlation
- (3) Regression
- (4) Mediation by sobel test

1.3.7 Analysis of result

This section incorporates the tables and figures of the statistical analysis results, which were product moment correlation and regression analysis using the SPSS tool and Sobel test. Mindfulness, coherence, and stress are analysed for relationships in Table 1. The direct relationship between stress and both mindfulness and a feeling of internal consistency is seen in Tables 2 and 3. Table 4 shows the combined impact of mindfulness and stress perception on

internal consistency. The mediating effects of mindfulness on stress levels and cohesiveness are shown in Table 5.

Table 1: The table represents the correlational analysis of mindfulness, sense of coherence and perceived stress

Correlations

		mindfulness	PS	SoC
mindfulness	Pearson Correlation	1	-.424**	.336**
	Sig. (1-tailed)		.000	.000
	N	110	110	110
PS	Pearson Correlation	-.424**	1	-.275**
	Sig. (1-tailed)	.000		.002
	N	110	110	110
SoC	Pearson Correlation	.336**	-.275**	1
	Sig. (1-tailed)	.000	.002	
	N	110	110	110

**, Correlation is significant at the 0.01 level (1-tailed).

Figure 2: path diagram

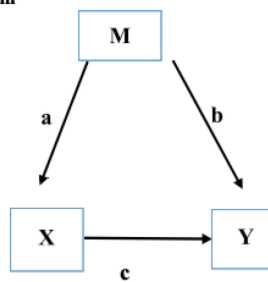


Figure 2 represents the mediational model. Here it is seen the mediating effect of mindfulness on perceived stress and sense of coherence.

Table 2: The table represents total effect of perceived stress on sense of coherence through bivariate regression

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	69.793	2.902		24.051	.000
PS	-.445	.150	-.275	-2.970	.004

a. Dependent Variable: SOC

Table 3: The table represents the direct effect of perceived stress on mindfulness through bivariate regression

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	61.527	2.005		30.681	.000
PS	-.504	.104	-.424	-4.864	.000

a. Dependent Variable: MF

Table 4: The table represents the direct effect of mindfulness and perceived stress on sense of coherence through multiple regression

Coefficients^a

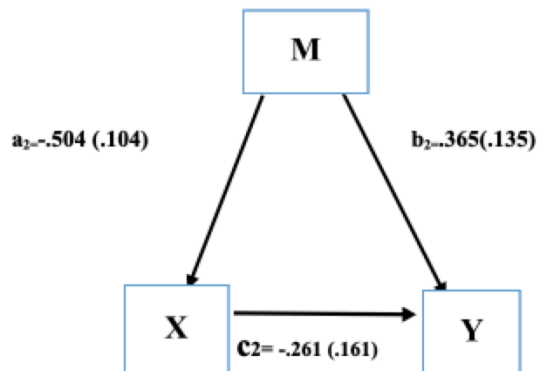
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	47.331	8.793		5.383	.000
PS	-.261	.161	-.161	-1.624	.107
MF	.365	.135	.268	2.697	.008

a. Dependent Variable: SOC

Table 5: The table represents the mediational analysis. Mindfulness is the mediating perceived stress and sense of coherence.

Input			Test statistic	Std error	p-value
a ₂	-.504	Sobel test	2.36110136	0.07791279	0.01822075
b ₂	.365				
s _a	.104				
s _b	.135				

Figure 3: Sobel Test Analysis



c = direct effect **a (-.504)*b (.365) = -0.18396 Estimated value**

The estimated value indicates the indirect effect of $a*b$ this signifies that the indirect effect is significant.

1.4 DISCUSSION OF THE STUDY

The purpose of this research is to examine whether mindfulness may act as a moderator between stress and mental cohesiveness. The results backed up the hypothesis. In this research, we tested the hypothesis that mindfulness would not have any impact on stress, that it would not mediate the link between stress and coherence, and that it would not have any effect on stress at all. The findings pointed to a connection between mindfulness and emotional stability, mental clarity, and overall well-being. Mindfulness also has a moderating influence on both stress and cohesiveness.

The first table, labelled "table 1," shows some descriptive data on levels of mindfulness, perceived stress, and feeling of coherence. These statistics include mean and standard deviation. According to the correlational analysis there is a significant positive correlation between sense of coherence, perceived stress and mindfulness at 0.01 level of signification. (table: 2)

The overall impact of stress on cohesiveness has been estimated using a bivariate regression analysis. Based on the data in the table, it is clear that levels of perceived stress have a direct and negative impact on feelings of integration. It is significant at 0.04 level. (table:3)

Through the process of bivariate regression the total effect of perceives stress on mindfulness is been calculated. According to the table (table:4) it is seen that perceived stress also has a direct effect on mindfulness and is significant at 0.00 level. It has been shown that when perceived stress and feeling of coherence are mediated by mindfulness, mindfulness and felt stress have a substantial and direct influence, but perceived stress and sense of coherence have neither (table:6).

According to Sobel test mediational analysis, mindfulness has a mediating effect on perceived stress and sense of coherence. Also the estimated value indicates $a*b$ which means the indirect effect is significant.

REFERENCES

- APA Dictionary of Psychology. (n.d.). <https://Dictionary.Apa.Org/Sense-of-Coherence>.
<https://dictionary.apa.org/sense-of-coherence>
- Ando, M., Natsume, T., Kukihara, H., Shibata, H., & Ito, S. (2011). Efficacy of mindfulness-based meditation therapy on the sense of coherence and mental health of nurses. *Health, 03*(02), 118–122. <https://doi.org/10.4236/health.2011.32022>
- Accoto, A.; Chiarella, S.G.; Raffone, A.; Montano, A.; de Marco, A.; Mainiero, F.; Rubbino, R.; Valzania, A.; Conversi, D. Beneficial Effects of Mindfulness-Based Stress Reduction Training on the Well-Being of a Female Sample during the First Total Lockdown Due to COVID-19 Pandemic in Italy. *Int. J. Environ. Res. Public Health 2021, 18*, 5512. <https://doi.org/10.3390/ijerph18115512>
- Barni, D., Danioni, F., Canzi, E., Ferrari, L., Ranieri, S., Lanz, M., Iafrate, R., Regalia, C., & Rosnati, R. (2020). Facing the COVID-19 Pandemic: The Role of Sense of Coherence. *Frontiers in psychology, 11*, 578440.
<https://doi.org/10.3389/fpsyg.2020.578440>
- Behan, C. (2020). The benefits of meditation and mindfulness practices during times of crisis such as COVID-19. *Irish Journal of Psychological Medicine, 37*(4), 256–258. <https://doi.org/10.1017/ipm.2020.38>
- Belen, H. (2021). Fear of COVID-19 and Mental Health: The Role of Mindfulness in During Times of Crisis. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-020-00470-2>
- Charoensukmongkol, P. (2014). Benefits of Mindfulness Meditation on Emotional Intelligence, General Self-Efficacy, and Perceived Stress: Evidence from Thailand. *Journal of Spirituality in Mental Health, 16*(3), 171–192. <https://doi.org/10.1080/19349637.2014.925364>
- Dymecka, J., Gerymski, R., Machnik-Czerwik, A. (2021). How does stress affect our life satisfaction during COVID-19 pandemic? Moderating mediation analysis of sense of coherence and fear of coronavirus. *Psychology, Health & Medicine*. DOI: 10.1080/13548506.2021.1906436
- Dhanalakshmi, D. (2019). Mindfulness-Based Stress Reduction (MBSR) to reduce anxiety, improve sense of coherence, optimism and general health among students. *IAHRW International Journal of Social Sciences, 121*–127
- Dobkin, P. L., & Zhao, Q. (2011). Increased mindfulness – The active component of the mindfulness-based stress reduction program? *Complementary Therapies in Clinical Practice, 17*(1), 22–27. <https://doi.org/10.1016/j.ctcp.2010.03.002>
- Farris, S. R., Grazzi, L., Holley, M., Dorsett, A., Xing, K., Pierce, C. R., Estave, P. M., O’Connell, N., & Wells, R. E. (2021). Online Mindfulness May Target Psychological Distress and Mental Health during COVID-19. *Global Advances in Health and Medicine, 10*, 216495612110024. <https://doi.org/10.1177/21649561211002461>

- Gustafsson, H., Skoog, T., Davis, P., Kenttä, G., & Haberl, P. (2015). Mindfulness and Its Relationship With Perceived Stress, Affect, and Burnout in Elite Junior Athletes. *Journal of Clinical Sport Psychology*, 9(3), 263–281. <https://doi.org/10.1123/jcsp.2014-0051>
- Guo, L. N., Liu, Y. J., McCallum, J., Söderhamn, U., Ding, X. F., Yv, S. Y., Zhu, Y. R., & Guo, Y. R. (2018). Perceived stress and depression amongst older stroke patients: Sense of coherence as a mediator? *Archives of Gerontology and Geriatrics*, 79, 164–170. <https://doi.org/10.1016/j.archger.2018.08.010>
- Grevenstein, D., Aguilar-Raab, C., & Bluemke, M. (2017). Mindful and Resilient? Incremental Validity of Sense of Coherence Over Mindfulness and Big Five Personality Factors for Quality of Life Outcomes. *Journal of Happiness Studies*, 19(7), 1883–1902. <https://doi.org/10.1007/s10902-017-9901-y>
- Glück, T. M., Tran, U. S., Raninger, S., & Lueger-Schuster, B. (2015). The influence of sense of coherence and mindfulness on PTSD symptoms and posttraumatic cognitions in a sample of elderly *Austrian survivors of World War II*. *International Psychogeriatrics*, 28(3), 435–441. <https://doi.org/10.1017/s104161021500143x>
- Green, J., Huberty, J., Puzia, M., & Stecher, C. (2021). The Effect of Meditation and Physical Activity on the Mental Health Impact of COVID-19–Related Stress and Attention to News Among Mobile App Users in the United States: Cross-sectional Survey. *JMIR Mental Health*, 8(4), e28479. <https://doi.org/10.2196/28479>
- Hover, P. (2013). Perceived Stress, Mindfulness, and Sense of Coherence: A Comparison Between First Generation and Non-First Generation Clinical Psychology Doctoral Trainees. *ProQuest LLC (2013)*, 1–24. <https://www.proquest.com/openview/d824f36ffd7a62c533a5708f659741cc/1?pq-origsite=gscholar&cbl=18750>
- Kang, C., Sun, S., Yang, Z., Fan, X., Yuan, J., Xu, L., Wei, Y., Tong, H., & Yang, J. (2021). The Psychological Effect of Internet-Based Mindfulness-Based Stress Reduction on the Survivors of Breast Cancer during the COVID-19. *Frontiers in Psychiatry*, <https://doi.org/10.3389/fpsy.2021.738579>
- Langeland, E. (2014). Sense of Coherence. SpringerLink. https://link.springer.com/referenceworkentry/10.1007%2F978-94-007-0753-5_2647
- Lim, J., Leow, Z., Ong, J., Pang, L. S., & Lim, E. (2021). Effects of Web-Based Group Mindfulness Training on Stress and Sleep Quality in Singapore During the COVID-19 Pandemic: Retrospective Equivalence Analysis. *JMIR Mental Health*, 8(3), e21757. <https://doi.org/10.2196/21757>
- Lu, F., Xu, Y., Yu, Y., Peng, L., Wu, T., Wang, T., Liu, B., Xie, J., Xu, S., & Li, M. (2019). Moderating Effect of Mindfulness on the Relationships Between Perceived Stress and Mental Health Outcomes Among Chinese Intensive Care Nurses. *Frontiers in Psychiatry*, 10. <https://doi.org/10.3389/fpsy.2019.00260>
- Mindfulness Definition | What Is Mindfulness. (n.d.). Greater Good. <https://greatergood.berkeley.edu/topic/mindfulness/definition>

- Montano, R. L. T., & Acebes, K. M. L. (2020). Covid stress predicts depression, anxiety and stress symptoms of Filipino respondents. *International Journal of Research in Business and Social Science* (2147- 4478), 9(4), 78–103. <https://doi.org/10.20525/ijrbs.v9i4.773>
- Malm, D., Fridlund, B., Ekblad, H., Karlström, P., Hag, E., & Pakpour, A. H. (2018). Effects of brief mindfulness-based cognitive behavioural therapy on health-related quality of life and sense of coherence in atrial fibrillation patients. *European Journal of Cardiovascular Nursing*, 17(7), 589–597. <https://doi.org/10.1177/1474515118762796>
- Momeni, J., Omid, A., Raygan, F., & Akbari, H. (2016). The effects of mindfulness-based stress reduction on cardiac patients' blood pressure, perceived stress, and anger: a single-blind randomized controlled trial. *Journal of the American Society of Hypertension*, 10(10), 763–771. <https://doi.org/10.1016/j.jash.2016.07.007>
- Mahon, M. A., Mee, L., Brett, D., & Dowling, M. (2017). Nurses' perceived stress and compassion following a mindfulness meditation and self compassion training. *Journal of Research in Nursing*, 22(8), 572–583. <https://doi.org/10.1177/1744987117721596>
- Muthukrishnan, S. (2016). Effect of Mindfulness Meditation on Perceived Stress Scores and Autonomic Function Tests of Pregnant Indian Women. *Journal Of Clinical And Diagnostic Research*. <https://doi.org/10.7860/jcdr/2016/16463.7679> Perceived-stress. (n.d.). Health Assured. <https://www.healthassured.org/blog/perceived-stress/>
- Phillips, A. C. (2013). Perceived Stress. SpringerLink. https://link.springer.com/referenceworkentry/10.1007/978-1-4419-1005-9_479
- Riopel, L. M. (2021, December 8). What Does it Mean to Have a Sense of Coherence? (+Scale). PositivePsychology.Com. <https://positivepsychology.com/sense-of-coherence-scale/>
- Schäfer, S., Sopp, M., Schanz, C., Staginnus, M., Göritz, A., & Michael, T. (2020). Impact of COVID-19 on Public Mental Health and the Buffering Effect of a Sense of Coherence. *Psychotherapy and Psychosomatics*, 1–7. <https://doi.org/10.1159/000510752>

CHAPTER 12

Transgender, Sexuality, Health and Wellbeing: Media Exposure and Viewers Attitude Towards Homosexuality

Sonal¹ & Amra Ahsan¹

*¹Faculty of Behaviour Science, Shree Guru Gobind Singh Tricentenary University,
Gurugram, India*

Abstract: The present study aims to evaluate the relationships between media exposure, age, and attitude on homosexuality. On the basis of past research, we presented a hypothesis that younger participants with higher levels of media exposure due to their wide range of accessibility to the technology and would have more positive attitudes on homosexuality as compared to older participants with more rigid thought pattern towards homosexuality for the hypothesis testing a convenience non-probability sample of 200 participants (100 male and 100 female) with age range between 18-80 years was selected participated in a cross-sectional, quantitative online survey using homosexuality attitude scale and media exposure questionnaire. The results depicts that (1) higher media exposure levels foster more accepting attitudes, (2) young participants are more accepting of homosexuality, furthermore the result of present study revealed from 3-way ANOVA test shows that there is a significant difference between males and females at 0.001 level of significance, along with a significance of 0.001 for attitude towards homosexuality as a dependent variable and age, gender, and media exposure all as independent variable respectively, i.e., age, gender and media exposure show significant effect on attitude towards homosexuality of a person along with concluding a vivid role of media in forming our attitude towards homosexuality.

Keywords: *Media exposure, Homosexuality attitude scale, thought pattern, 3-way ANOVA, accepting attitude.*

1.1. INTRODUCTION

When it comes to gender it is a characteristic of an individual that are socially constructed, where else sexual orientation is defined as the time period used by an individual to paint one's examples of sexual fascination and social persona centred round his attractions. Heterosexuality (enchantment the inverse intercourse), homosexuality (enchantment toward equal intercourse), and bisexuality (enchantment toward both intercourse) are the 3 most customarily tested classifications of sexual advent. The earliest records of homosexuality can be found in the texts and art of Greece philosophers and writers who included Plato, Xenophon, Plutarch, and pseudo-Lucian, to performs with the aid of using Aristophanes, to Greek art work and vases. After Greece, Rome is the subsequent major big entity withinside the records of homosexuality. In North America, the Spanish and French explorers and missionaries who visited the New World fast have become aware about great Indian transvestism (guys dressing as women) and homosexuality. With the modernisation the sexual revolution started which withinside the Christian subculture and the upward thrust of permissive societies, changed the accepting of more sexual freedom that unfold all around the international idea of "unfastened love". In 1986 all references to homosexuality as a psychiatric disease have been eliminated from the Diagnostic and Statistical Manual of Mental Disorders (DSM) of the American

Psychiatric Association. In India, while homosexuality has now no longer been explicitly referred to within the spiritual texts, some historical literary proofs that homosexuality is not something from outside of the culture commonly considered as a western practice introduced by the Britishers during the colonial period but in reality, there are some of historic Indian texts which can be applicable to fashionable LGBT causes and the British Raj banned gay members of the family below Section 377 of the Indian Penal Code, which entered into pressure in 1861. This regulation became struck down through the 2009 Delhi High Court choice *Naz Foundation v. Govt. of NCT of Delhi*, Decisions of a High Court at the constitutionality of a regulation (i.e. judicial review) On September 6, 2018 after a number of protests and activism the Supreme court finally pronounced its verdicts to decriminalize the practice of intercourse between same gender i.e., but till date even after decriminalize of section 377 of IPC people are still fighting and struggling to establish their place in the society. When it comes to media films have a vivid effect on society's manner of thinking. When it's come to Homosexuality public representation of homosexuality has been inhibited through the reality that sexuality. In the early years of media the biggest hurdle for representation were stringent guidelines clamped through the Indian censor board which doesn't permit portrayals of opportunity love. But there are a few courageous movies like *Mast Kalandar* (1981) featuring Bollywood's 'first' out and out 'homosexual' man. Later the homosexual sidekick emerged as a staple comedian man or woman from the Nineties onwards. In the year 1996 the first homosexual-based movie was released to the public with the title 'fire' depicting a lesbian dating due to the fact that actress of the movie belongs to a Muslim background but played Hindu roles Hindu fundamentalist rioted film. In the identical year as Fire, got here a 12-minute gem of a brief movie known as *Bom Gay*. With the start of 2000s the filmmakers now took prominent efforts in making movies depicting real issues faced by homosexuals with movies like *mango souffle* (2002), *girlfriends* (2004), *my brother Nikhil* (2005), and *honeymoon travels* (2006), *margirita with a straw* (2014), *Aligarh* (2015), *eek ladki ko dekha toh eesa laga* (2019) and *subh mangal jyada shavdhan* (2020) portrayed presence of homosexuality in the society. This shift towards acceptance led to the change in attitude of society Not only in movies in all broadcast networks, the presence of regular characters identifying as LGBTQ increased towards a more accepting a warm approach. The present study aims to know the attitude change of society through media similar to Gonta, Hansen, Fagin and Fong (2017) study on *Changing Media and Changing Minds: Media Exposure and Viewer Attitudes Toward Homosexuality* and Srivastava (2016) study on *Portrayal of Homosexuals in Bollywood: Post the 2009 Repeal of Section 377 of Indian Penal Code* which found that audience now actively make a change to their attitude.

Objective: to study the relationship between media exposure and viewer's attitude towards homosexuality across genres and gender.

Hypothesis: the relationship between media exposure and viewer's attitude towards homosexuality will vary across genres and gender.

1.2. METHOD

The main aim of the present study was to study the effect of Media exposure on viewers attitude towards homosexuality across genres and gender.

SAMPLE: A sample of 200 (100 male and 100 female) participants with age range between 18-85 years was selected through purposive sampling method with informed consent. The illustration representation of which is as follows:

AGE RANGE	MALE	FEMALE	TOTAL
18-30	25	25	50
31-45	25	25	50
46-60	25	25	50
61-85	25	25	50
TOTAL	100	100	200

The participants were selected on the criteria that the participant should lie between the age range of 18-85 years old and should be belonging to Delhi NCR Region only. Individuals under the age of 18 and above 85 years old not belonging from Delhi NCR Region were excluded from participating in the study.

TOOLS: Demographic data: participants were asked to report their gender, age, ethnicity and religion. **Media exposure questionnaire:** in order to measure media exposure 9 questions were asked from the participants based on Likert scale. Questionnaire was taken from the study done by Gonta, Gabby; Hansen Shannon; Fagin Claire; and Fong Jennevieve (2017) "Changing Media and Changing Minds: Media Exposure and Viewer Attitudes Toward Homosexuality," Pepperdine Journal of Communication Research: Vol. 5 Article 5. The questions have been changed according to Indian viewers context. **Homosexuality attitude scale (HAS):** HAS is a 21-items 5-point Likert scale given by Mary E. Kite, Deaux, K. (1986) to assess participant's perception towards homosexuality and people's stereotypes, misconceptions, and anxieties about homosexuals. The measure contains a unidimensional factor representing a favorable or unfavourable evaluation of homosexuals. Internal consistency alphas $>.92$ and Test-retest reliability $r = .71$ the correlates with FEM Scale (Smith, Ferree, & Miller, 1975) and Attitude Toward Women Scale (Spence & Helmreich, 1978) $r_s = .50$

STUDY DESIGN: A cross sectional study design was used in present study.

Dependent variables- Attitude towards homosexuality, **independent variables-**Media exposure, **Covariate-** Age and Gender

1.2.1. PROCEDURE

In the present study, sample of 200 people was selected on the basis of purposive sampling. At first, the participants were informed about the study and informed consent was taken and they were provided with the questionnaire through google form in both Hindi and English language to assess the effect of media exposure on their attitude towards homosexuality. After data collection it was recorded in IBM SPSS 23 Version software and analysed. In order to fulfil the objectives and to verify the hypotheses, various statistical analysis techniques were used. Such as to check the correlation between homosexuality and media exposure person's correlation was used along with Duncan's post hoc test was used to check the attitude towards homosexuality of participants belonging to different age ranges and 3-way ANOVA was used

to check the significant value and between subject effect for age media exposure and gender with attitude towards homosexuality as the dependent variable.

TABLE 1: Showing descriptive statistics of subjects on media exposure, gender and age on their attitude towards homosexuality (dependent variable) for N=200

INDEPENDENT VARIABLES		N	MEAN	SD
MEDIA EXPOSURE	HIGH	89	72.13	22.051
	LOW	111	48.14	19.799
GENDER	MALE	100	56.59	22.086
	FEMALE	100	61.05	25.649
AGE CATEGORY	18-30	50	81.08	14.298
	31-45	50	76.26	17.258
	46-60	50	43.36	11.197
	61-85	50	34.58	6.810

TABLE 2: Showing impact of age, media exposure and gender on attitude towards homosexuality (N=200) using 4*2*2 design, 3-way analysis

Source of variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	88054.365 ^a	14	6289.597	44.267	<.001
Intercept	555431.841	1	555431.841	3909.237	<.001
Age categorical	46817.061	3	15605.687	109.836	<.001
Media exposure categorical	2592.654	1	2592.654	18.248	<.001
Gender	1554.075	1	1554.075	10.938	.001
Age categorical * Media exposure categorical	484.742	3	161.581	1.137	.335
Age categorical * Gender	311.017	3	103.672	.730	.536
Media exposure categorical * Gender	369.190	1	369.190	2.598	.109
Age categorical * Media exposure categorical * Gender	948.251	2	474.125	3.337	.038
Error	26285.155	185	142.082		
Total	806298.000	200			
Corrected Total	114339.520	199			

a. R Squared = .770 (Adjusted R Squared = .753)

b. Computed using alpha = .05

TABLE 3: Showing Inter correlation among age, media exposure and attitude towards homosexuality of male participants. (For N=100 participants)

Variable	Age	Media Exposure	Attitude Towards Homosexuality
Age	1	-0.435**	-0.812**
Media Exposure		1	0.479**
Attitude Towards Homosexuality			1

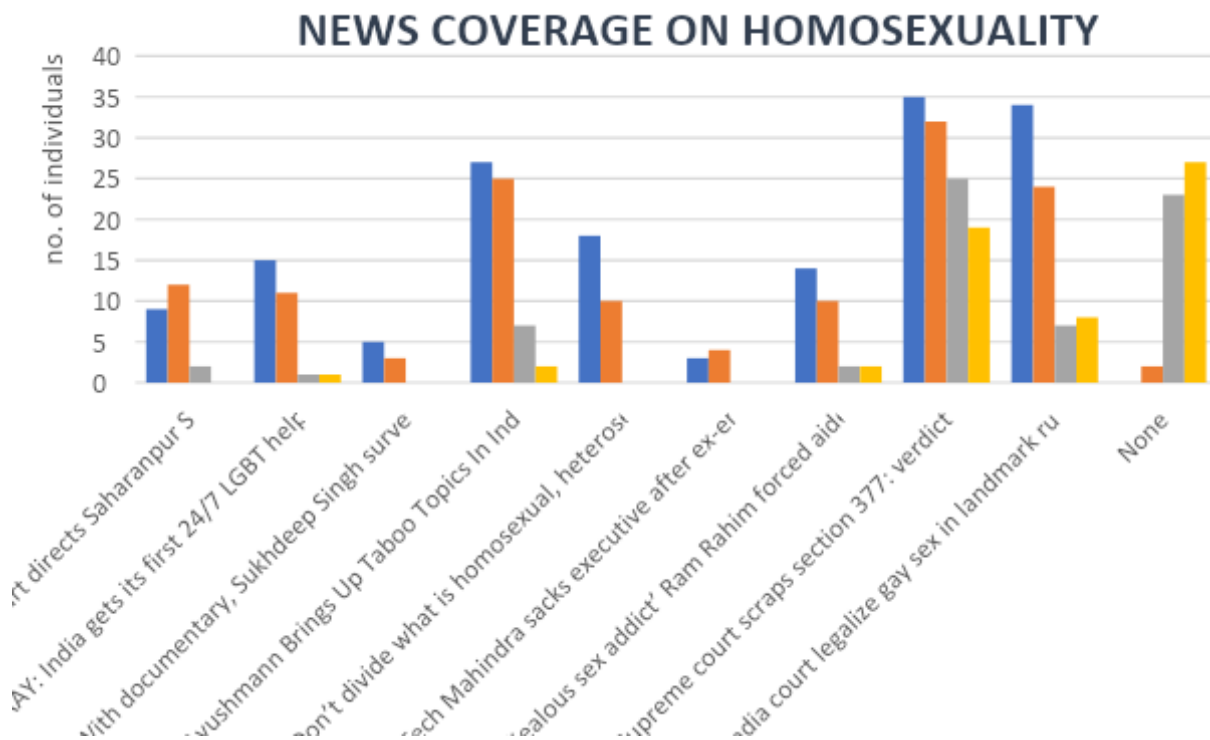
**p<0.01

TABLE 4: Showing Inter correlation among age, media exposure and attitude towards homosexuality of Female participants. (For N=100 participants)

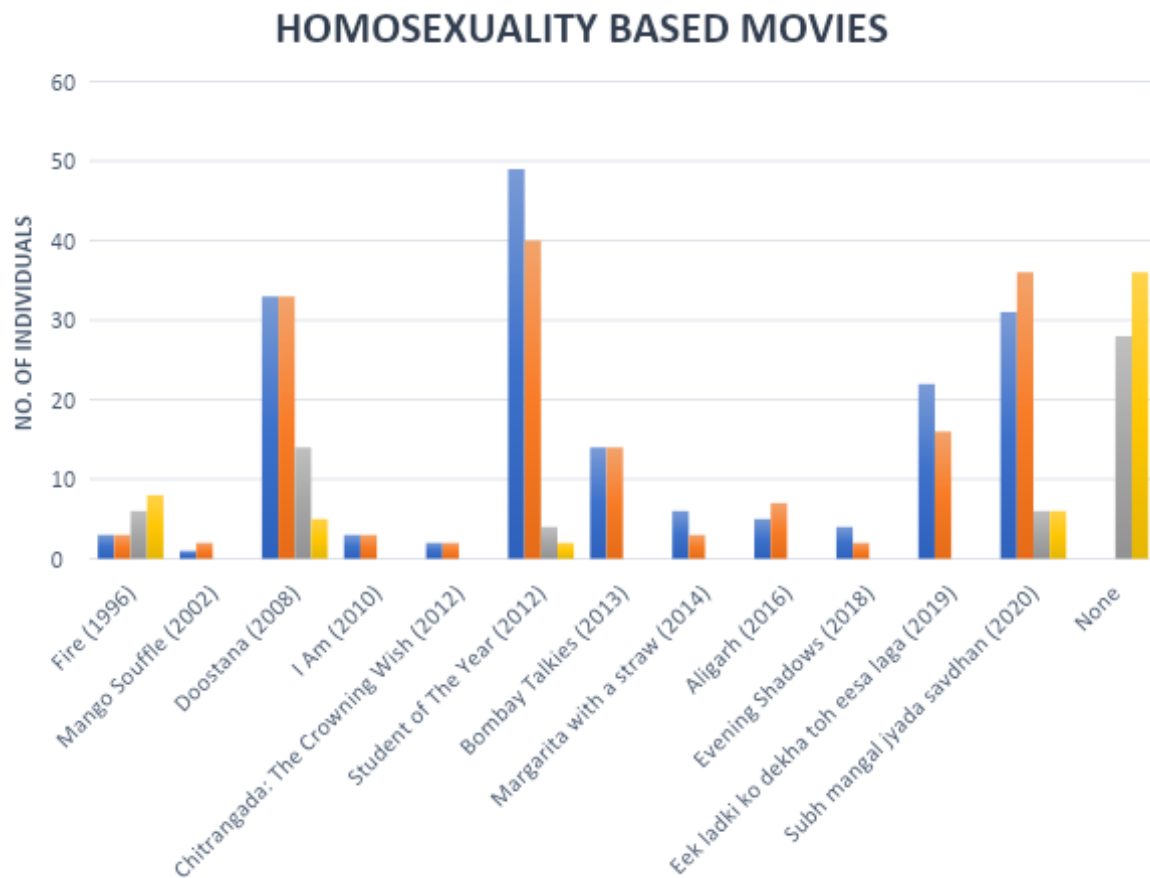
Variable	Age	Media Exposure	Attitude Towards Homosexuality
Age	1	-0.709**	-0.823**
Media Exposure		1	0.819**
Attitude Towards Homosexuality			1

**p<0.01

GRAPH 1: Showing no. of individuals belonging to a particular age range viewing news coverage based on homosexuality.



GRAPH 2: Showing no. of individuals belonging to an particular age range viewing movies based on homosexuality



1.3. RESULT

Table 1 shows descriptive statistics of male and female in which female with mean=61.05 and SD=25.649 have an overall more accepting and positive attitude towards homosexuality as compared to males with mean=56.59 and SD=22.086 Furthermore, the descriptive statistics of different age categories with dependent variable as attitude towards homosexuality shows that the Mean and SD values of 18-30 years old participants is highest with mean= 81.08 and SD=14.298 followed by 31-45 age range with mean = 76.26 and SD=17.258 which is slightly lower than 18-30years old but greater than 46-60 age range with a mean=43.36 and SD=11.197. At last the participants lying in the age range of 61-85 have the lowest score with mean=34.58 and SD=6.810. Table 2 represents the 3-way ANOVA test of between subject effects for Attitude towards homosexuality as a dependent variable on age, gender, and media exposure using 4*2*2 design and shows a significant interaction effect on attitude towards homosexuality when age, gender and media exposure are all taken as an independent variable. However, no significant interaction effect was found on attitude towards homosexuality when age and media exposure were combined, not with age and gender together and finally, not with media exposure and gender. Table 3 represents the Duncan^{ab} Post hoc test on attitude towards homosexuality divided into 4 subsets of different age groups. Subset 4 (age range of 18-30 years old) have a mean score of 81.08, the subset 3 (age range of 31-45 years old) have a score of 76.26, subset 2 (age range 46-60 years old) have a mean score is 43.36 and at last subset 1 (age range of 61-85 years old) have a mean score of 34.58 suggesting that participant's lying within the subset 4 have the most positive attitude towards homosexuality as compared to

subset 3, subset 2 and subset 1 respectively. Subset 1 have the least mean score i.e. participants lying within the age range of 61-85 have the least positive attitude towards homosexuality.

Table 3 and 4 represents the inter correlation among age, media exposure and person's attitude towards homosexuality for both male and female participants with a significant negative correlation between media exposure and age ($r = -0.435$) at 0.01 level of significance in males and a significant negative correlation between media exposure and age ($r = -0.709$) at 0.01 level of significance in females with a significant negative correlation between attitude towards homosexuality and age ($r = -0.812$) at 0.01 level of significance in males and a significant negative correlation between attitude towards homosexuality and age ($r = -0.823$) at 0.01 level of significance in females. The table also shows that females have a higher negative correlation as compared to male participants between attitude towards homosexuality and age, along with a significant negative correlation between media exposure and age. Along with a significant positive correlation between media exposure and attitude towards homosexuality ($r = 0.479$) at 0.01 level of significance in males and a significant positive correlation between media exposure and attitude towards homosexuality ($r = 0.819$) at 0.01 level of significance in females.

The graph 1 indicates that the first and second age groups consisting of younger generation have higher media exposure as compared to other two age groups consisting of the older generation with younger generation belonging to first and second age group have exposure to almost every news headline but among older generation have no or very little exposure to news media. The graph indicates that the first and second age groups consisting of younger generation have higher exposure to such Bollywood movies as compared to other two age groups consisting of the older generation. It also shows that movies including "doostana", "student of the year", "eek ladki ko dekha toh eesa laga" and "subh mangal jyada savdhan" are most popular among younger generation, along with movies including "fire", "doostana" and "subh mangal jyada savdhan" popular among older generation.

1.4. DISCUSSION

The main aim of the present research was to study the effect of media exposure on the viewer's attitude towards homosexuality. The result from descriptive statistics shows that person's attitude towards homosexuality decreases with age range from 18-30 years old having a highest mean score value of 81.08 to 61-85 years old with a mean score of 34.58 (least accepting attitude towards homosexuality), due to rigid thinking pattern and pre developed value system and notions of the old individual about homosexuality. Ayoub, and Garretson, (2017). Getting the message out: Media context and global changes in attitudes toward homosexuality, also revealed that, in India homosexuality was earlier stated as a taboo, where else increase in the availability of sources along with an open and more positive representation of homosexuality resulted in a more positive attitude in young generation. 3-way ANOVA test shows that there is a significant difference between males and females at 0.001 level of significance, along with this the table also shows a significance of 0.0001 for attitude towards homosexuality as a dependent variable and age, gender, and media exposure all as independent variable respectively, i.e., age, gender and media exposure show significant effect on attitude towards homosexuality of a person. Similar results were also found in the study conducted by Gonta, Hansen, Fagin and Fong (2017) Changing Media and Changing Minds: Media Exposure and Viewer Attitudes Toward Homosexuality. Duncan's post hoc test reveals that subset 4 (18-30 years old) have the most positive attitude towards homosexuality as compared to subset 3 (31-45 years old), subset 2 (46-60 years old) and subset 1 (61-85 years old) respectively. The result of present study revealed from Pearson's correlation tables 3 and 4 shows that females have a

more positive attitude towards homosexuality with a significant correlation score of 0.819 with media exposure as compared to males with a correlation score of 0.479 for attitude towards homosexuality with media exposure. Other than this both males and females showed a negative significant correlation of media exposure and age of -0.435 for males and -0.709 for females along with a significant negative correlation of -0.812 for male and -0.823 for females for age and attitude towards homosexuality. Hence, the hypothesis 1 and hypothesis 2 of our study that the relationship between media exposure and viewer's attitude towards homosexuality will vary across genes and gender were found to be true and study findings suggests that acceptance of homosexuality in people can be increased by higher media exposure. Limitation of present study include non-random sample; study was conducted at Delhi-NCR and Gurugram region so it lacks generalization and it does not include the effect of religion and ethnicity on the attitude towards homosexuality.

REFERENCES

- Ayoub, P. M., & Garretson, J. (2017). Getting the message out: Media context and global changes in attitudes toward homosexuality. *Comparative political studies*, 50(8), 1055-1085.
- Bakshi, K. and Sen, P. (2012), 'India's queer expressions on-screen: The aftermath of the reading down of Section 377 of the Indian Penal Code', *New Cinemas* 10: 2, pp. 167–183, doi: 10.1386/ncin.10.2.167_
- Bond, B. J., & Compton, B. L. (2015). Gay on-screen: The relationship between exposure to gay characters on television and heterosexual audiences' endorsement of gay equality. *Journal of Broadcasting & Electronic Media*, 59(4), 717-732.
- Bose, K., & DrSreena, K. (2021). (Mis) Representation of Female Homosexuality in Select Bollywood Movies. *Annals of the Romanian Society for Cell Biology*, 25(6), 8505-8512.
- Calzo, J. P., & Ward, L. M. (2009). Media exposure and viewers' attitudes toward homosexuality: Evidence for mainstreaming or resonance?. *Journal of Broadcasting & Electronic Media*, 53(2), 280-299.
- Fisher, D. A., Hill, D. L., Grube, J. W., & Gruber, E. L. (2007). Gay, lesbian, and bisexual content on television: A quantitative analysis across two seasons. *Journal of homosexuality*, 52(3-4), 167-188.
- Gonta, G., Hansen, S., Fagin, C., & Fong, J. (2017). Changing media and changing minds: media exposure and viewer attitudes toward homosexuality. *Pepperdine Journal of Communication Research*, 5(1), 5.
- Thomas, J. N., & Whitehead, A. L. (2015). Evangelical elites' anti-homosexuality narratives as a resistance strategy against attribution effects. *Journal for the Scientific Study of Religion*, 54(2), 345-362.

CHAPTER 13

Psychosocial Crisis in Covid-19 and Post-Era: A New Normal

Syed Faraz Ali¹ & Aqeel Khan¹

¹Faculty of Social Science & Humanities, Universiti Teknologi Malaysia.

Abstract: This COVID-19 pandemic has affected people in many ways and it will take years to evaluate the usefulness and full damage of their health & wealth. It has profoundly affected the life experience of people and the way people work to earn their livelihood. Whether it is rich or poor, successful or struggler, celebrity of commoner, etc. everyone is expecting for anticipating future challenges. The most predictive and important feature of experience of people during this pandemic is that people are stuck in their present, remembering their past and lost their hopes from future. It has created a negative impact on people's emotion and psychological cognition. Because of this pandemic situation and being quarantined at home, they have developed an inability of plan ahead i.e. right now; it is hard from them to imagine a future which is different from the present. Therefore, it is important for people to debrief themselves emotionally, mentally, socially and psychologically. They need to hold on to their faith and inner strength to win the fight against this pandemic situation. The purpose of this study is to explore the recent experiences of people in the crisis situation and what impact does this COVID-19 pandemic has developed on their mental health status and their economic as well as their social life. This study is intended to explain the psychosocial issues on a theoretical basis, and is based on the conceptual framework.

Keywords: *Corona Virus, Psychologically, Pandemic, Covid-19, Mental Health*

1.1. INTRODUCTION

Today, the world is suffering from an outbreak of novel corona virus SARS-COV-2, following corona virus disease-19 (COVID-19) and it is continuously evolving at a rapid pace. It was declared a public health emergency by World Health Organization on 30 January 2020 (WHO, 2020). According to the statistical data shared by WHO, globally there has been around more than 228, 431, 177 confirmed cases and 5,151, 176 confirmed deaths due to Covid-19 until September 2021 (Worldometer.info, 2021). By the time, this pandemic is still growing and evolving continuously at a rapid pace and has affected the entire world population in many different ways.

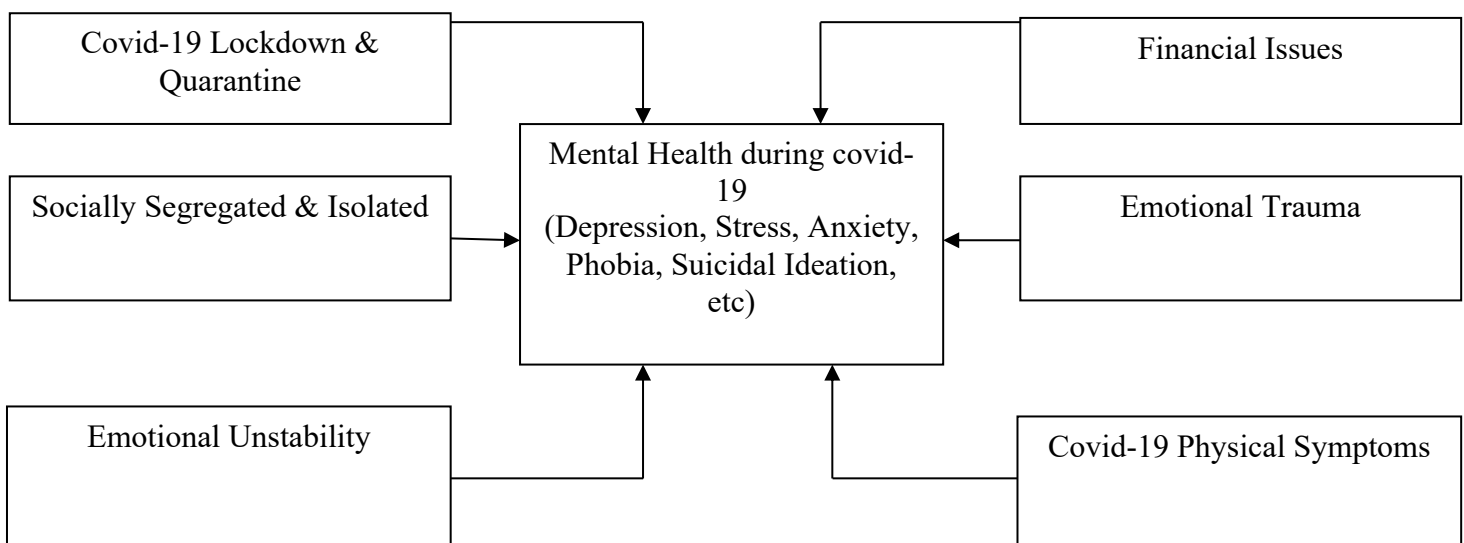
People are feeling the impact in either because of the virus itself, or because of the disturbance it has created in our lives. The life which was used to be normal earlier has now become disrupted because of this pandemic. People have become depressed, anxious and lost their emotional control (Mazza et al., 2020; Fucci et al., 2020). It is hard for them to cope-up with this crisis as the situation is unprecedented and this pandemic is unlikely the diseases which we have already dealt with before. As of now, this pandemic has affected us all and has also led to dramatic loss of human life (Shereen et al., 2020). It has presented serious unusual challenges in many areas, whether it is public health sector, global economy system, social system, or the world of work (Liu, Lee & Lee, 2020).

The pandemic and its response, in the form of extended lockdown, have had several short-term as well as long-term impacts on human health, society, economy, and environment (Singh, Roy, Sinha, Parveen, Sharma & Joshi, 2020). For example, people do not have any way to earn their livelihood and to fulfill their daily basic needs. Because of this, many people have already committed suicide also (Pirkis et al., 2021). But with the warning and day by day inclination of cases, the immeasurable pain and suffering for the people were also increased continuously. It is whether rich or poor, successful or a struggler, celebrity or a commoner, etc every person is expecting for anticipating future challenges (Hite & McDonald, 2020). Nearly tens of millions of people are falling into poverty and nearly half of the world's global workforces are at risk of losing livelihood (Vanchan, 2021). Therefore, it is important for people to debrief themselves emotionally, mentally, socially, and psychologically. They need to hold on to their faith and inner strength to win the fight against this pandemic situation.

1.2. PSYCHOLOGICAL IMPACTS OF COVID-19 PANDEMIC

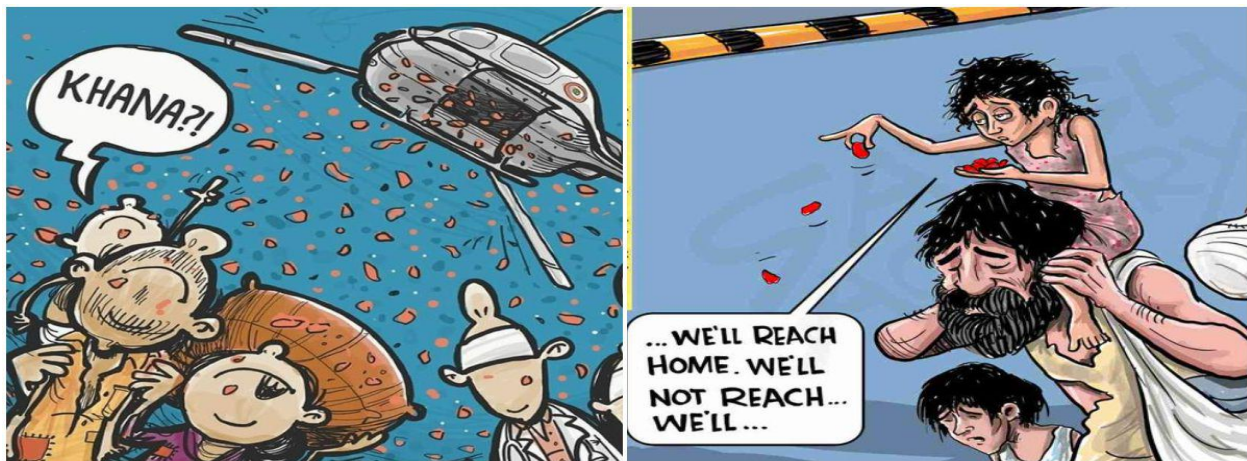
The covid-19 pandemic has affected to us all and led to a dramatic loss of human life, and presented unusual challenges to the public health. People have become more susceptible to the psychological aspects of covid-19 due to both pandemic and its repercussions (Serafini et al., 2020). People have become depressed, lost their emotional control, develop sleep disorders, and led to prolonged exposure to stress (Marvaldi et al., 2020; Wells et al., 2020). The psychological effects of pandemic itself as well as the traumatic experiences of surrounding people are seen at very individual level (Xiong et al., 2020). Furthermore, the number of suicide cases has also been increased among the people with existing mental health illness (Sher, 2020). Mental health is currently destabilized, i.e., the symptoms ascribed to psychological distress may appear in people who have a pre-existing mental disorder and also in individuals without having positive history of any distress (Zhang, 2020). The common causes of psychological distress are found to be, fear of infections and contagion, fear of lockdown duration, feeling of frustration, boredom, and inadequate supplies, & information (Satici, Gocet-Tekin, Deniz & Satici, 2021).

A conceptual framework of psychological issues during Covid-19 pandemic



1.3. SOCIAL IMPACTS OF COVID-19 PANDEMIC

According to World Health Organization, the Covid-19 pandemic is a global health challenge and crisis in the human history which is attacking societies at their core (Mishra, 2020). The pandemic occurrence affects all segments of the population including people live in poverty situations, older people, people with disabilities, and indigenous people (Bostan, Erdem, Ozturk, Kilic & Yilmaz, 2020). Early evidences based on facts & researches indicate that the social impacts of corona virus are being borne unreasonably by poor people (United Nations, 2021; Javed, Bukht & Javaid, 2020). As a result of this, several social issues have been increased due to this pandemic, such as, inequality, discrimination, and global unemployment in the long term (Chaudhary, Sodani & Das, 2022). For example, a displaced person or a migrant labor tends to suffer a lot unreasonably due to from the pandemic and its after effects (Choudhari, 2020). Furthermore, there are a lot of stressors have been created by the actions used to slow down the spread of virus itself, such as financial conflicts & consequences, social isolation, and indecision about the future (Satpathy & Ali, 2020).



1.4. POST COVID ERA: A NEW NORMAL

The Covid 19 pandemic has changed the way people live, act, and work in the new normal phase. Early signs of recovery are appearing as the rate of virus infection begins to slow down (Svoboda et al., 2022). Many towns, cities, and states are slowly starting to reopen the public areas and their business in different regions along with the mandatory safety measures (Suh & Alhaery, 2021; Zhu & Tan. 2022). However, worldwide now on and from the beginning also many doctors, psychologists, psychiatrists, health workers, scientists, the media, etc. and other administrator staffs is promptly working during the emergency, in the medium and long term, along with some intervention strategies and models (Gupta & Sahoo, 2020). Since, this Covid-19 is neither the first pandemic to hit this world and affect people's life in a negative way, nor it will be the last. Till now in the history of world, there is no pandemic, any natural disaster, or even war has managed to strangle their escalation and dominance over the long term (Florida, Rodriguez & Storper, 2021).

1.5. CONCLUSION

The psychosocial ramifications of this pandemic are far greater than we ever think or perceive. It was assumed that the instability due to this pandemic would shake the whole world and affect many countries once it would get over (Kumar, Nayar & Koya, 2020; Massis & Rondi, 2020; Islam & Zayed, 2021). The work measures and conditions are changing noticeably due to this pandemic situation, which meanwhile accompanying new psychosocial challenges for health and the world of work (Papandrea & Azzi, 2020; Peters et al., 2022). This inexperienced circumstance of Covid-19 has undoubtedly demonstrated that people are largely and emotionally unprepared to the negative consequences of such biological disasters, which means that individuals are certainly may be fragile and helpless. At last, it seems too apparent that psychosocial support and sustainability during the time of such pandemic situations is not only obvious, but mandatory.

REFERENCE

- Bostan, S., Erdem, R., Öztürk, Y. E., Kılıç, T., & Yılmaz, A. (2020). The Effect of COVID-19 Pandemic on the Turkish Society. *Electronic Journal of General Medicine*, 17(6).
- Chaudhary, M., Sodani, P. R., & Das, S. (2020). Effect of COVID-19 on economy in India: Some reflections for policy and programme. *Journal of Health Management*, 22(2), 169-180.
- Choudhari, R. (2020). COVID 19 pandemic: mental health challenges of internal migrant workers of India. *Asian journal of psychiatry*, 54, 102254.
- De Massis, A. V., & Rondi, E. (2020). COVID-19 and the future of family business research. *Journal of Management Studies*, 57(8), 1727-1731.
- Florida, R., Rodríguez-Pose, A., & Storper, M. (2021). Cities in a post-COVID world. *Urban Studies*, 00420980211018072.
- Gupta, S., & Sahoo, S. (2020). Pandemic and mental health of the front-line healthcare workers: a review and implications in the Indian context amidst COVID-19. *General Psychiatry*, 33(5).
- Hite, L. M., & McDonald, K. S. (2020). Careers after COVID-19: Challenges and changes. *Human Resource Development International*, 23(4), 427-437.
- Islam, K. A., & Zayed, N. M. COVID-19: After Effects Of Coronavirus And Its Impact On Global Economy.
- Javed, M. K., Bukht, N., & Javaid, S. (2020). COVID-19 Effect on Poor. *International Journal of Medical Science in Clinical Research and Review*, 3(03), 263-268.
- Kumar, A., Nayar, K. R., & Koya, S. F. (2020). COVID-19: Challenges and its consequences for rural health care in India. *Public Health in Practice*, 1, 100009.

- Liu, Y., Lee, J. M., & Lee, C. (2020). The challenges and opportunities of a global health crisis: the management and business implications of COVID-19 from an Asian perspective. *Asian Business & Management*, 19(3), 277-297.
- Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., & Roma, P. (2020). A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: immediate psychological responses and associated factors. *International journal of environmental research and public health*, 17(9), 3165.
- Mishra, M. K. (2020). The World after COVID-19 and its impact on Global Economy.
- Mucci, F., Mucci, N., & Diolaiuti, F. (2020). Lockdown and isolation: psychological aspects of COVID-19 pandemic in the general population. *Clinical Neuropsychiatry*, 17(2), 63.
- Papandrea, D., & Azzi, M. (2020). Managing work-related psychosocial risks during the COVID-19 pandemic. *International Labour Organization*.
- Peters, S. E., Dennerlein, J. T., Wagner, G. R., & Sorensen, G. (2022). Work and worker health in the post-pandemic world: a public health perspective. *The Lancet Public Health*, 7(2), e188-e194.
- Pirkis, J., John, A., Shin, S., DelPozo-Banos, M., Arya, V., Analuisa-Aguilar, P., & Spittal, M. J. (2021). Suicide trends in the early months of the COVID-19 pandemic: an interrupted time-series analysis of preliminary data from 21 countries. *The Lancet Psychiatry*, 8(7), 579-588.
- Satici, B., Gocet-Tekin, E., Deniz, M., & Satici, S. A. (2021). Adaptation of the Fear of COVID-19 Scale: Its association with psychological distress and life satisfaction in Turkey. *International journal of mental health and addiction*, 19(6), 1980-1988.
- Satpathy, B., & Ali, E. (2020). A study on psychological well-being of final year management students during COVID-19 pandemic lockdown in India. *International Journal of Indian Psychology*, 8(2), 1-25.
- Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of COVID-19 on the mental health in the general population.
- Sher, L. (2020). Psychiatric disorders and suicide in the COVID-19 era. *QJM: An International Journal of Medicine*, 113(8), 527-528.
- Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 infection: Emergence, transmission, and characteristics of human coronaviruses. *Journal of advanced research*, 24, 91-98.
- Singh, S., Roy, D., Sinha, K., Parveen, S., Sharma, G., & Joshi, G. (2020). Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations. *Psychiatry research*, 293, 113429.
- Suh, E., & Alhaery, M. (2021). Measuring reopening readiness: A universal COVID-19 index for US states. *Library Hi Tech*.

- Svoboda, J., Tkadlec, J., Pavlogiannis, A., Chatterjee, K., & Nowak, M. A. (2022). Infection dynamics of COVID-19 virus under lockdown and reopening. *Scientific Reports*, 12(1), 1-11.
- United Nations (2021). Social impacts of Covid-19. <https://www.un.org/development/desa/dspd/everyone-included-covid-19.html#:~:text=Early%20evidence%20indicates%20that%20that,the%20danger%20of%20the%20virus>.
- Vanchan, V. (2021). Global pandemic disruptions, reconfiguration and glocalization of production networks. In *Living with Pandemics*. Edward Elgar Publishing.
- World Health Organization (2020). Coronavirus disease (Covid-19) pandemic. [Who.int/emergencies/diseases/novel-coronaviruses-2019](https://www.who.int/emergencies/diseases/novel-coronaviruses-2019).
- Worldometer.info (2021). Corona virus cases & deaths. [Worldometer.info/coronavirus/](https://www.worldometer.info/coronavirus/).
- Zhang, J., Lu, H., Zeng, H., Zhang, S., Du, Q., Jiang, T., & Du, B. (2020). The differential psychological distress of populations affected by the COVID-19 pandemic. *Brain, behavior, and immunity*, 87, 49.
- Zhu, P., & Tan, X. (2022). Evaluating the effectiveness of Hong Kong's border restriction policy in reducing COVID-19 infections. *BMC Public Health*, 22(1), 1-

CHAPTER 14

Evidence-Based Psychotherapeutic Interventions for the Elderly: A Review of Literature

Aastha Dhingra¹ & Waheeda Khan¹

¹Faculty of Behavioural Sciences, Shree Guru Gobind Singh Tricentenary University, Gurugram, India

Abstract: This literature review explores evidence-based psychotherapeutic interventions for the elderly, focusing on various psychological issues commonly experienced in old age. The interventions covered include reminiscence therapy, life review therapy, yoga, spiritual therapy, light therapy, massage therapy, aromatherapy, bibliotherapy, pleasant activities, and positive psychological interventions. The review examines the effectiveness and potential benefits of each intervention in promoting the mental health and wellbeing of older adults. By summarizing and synthesizing findings from existing research, this review aims to provide a comprehensive understanding of the potential therapeutic approaches available to enhance the psychological health and quality of life for the elderly population.

Keywords: *Psychotherapy, Intervention, Elderly*

1.1. INTRODUCTION

Life offers a canvas of numerous colours, with thoughts, feelings, and different reaction patterns functioning as the paintbrush's parts and reflecting multifaceted light like a prism. Nature is like this. While some songs are mellow and enjoyable to listen to, others serve as icebergs and give a rougher, deeper, and hidden edge. Life has all the elements—be it beauty, character trait, a sense of wellbeing, or threat, danger, suffering, anxiety, and despair. They exist because living organisms, specifically humans, are able to sense them.

The modern world now envisions the human matrix as having too many patches of grey hair throughout the "winter of the human being's existence" due to advancements in medical technology. The population does, in fact, have a sizable length of elderly people. In the second half of life, it has become important to correctly study and comprehend how "we," the advanced-world human beings, are acting and changing the external environment. What kinds of psychological issues are jeopardising our ability to adjust has emerged as a key concern in "gerontology," given that the second half of life has seen somewhat more negative trends than the first. These trends include declining socio-biological and psychological components.

The World population constitutes 524 million people aged 65 years and above. The Indian Population reached 1.039 billion. Number of elders is expected to increase to 173 million by 2026 (United Nations Population Fund & Helpage India, 2016). The amount of intergenerational connection is growing since elders are surviving 15 to 25 years (or even longer) after turning 60. Elder people are therefore in a difficult situation since, along with age, they often develop physical impairments and emotional insecurities, loneliness, a lack of support and care, a vivid sense of role loss, discontentment, and a loss of confidence.

In India, families were multigenerational or so-called joint families. The social and cultural values that make up Indian society are blended. Elderly have always been revered in India as

being dignified, distinguished, and the head of the family unit. Age is often associated with wisdom, morals, and a plethora of other admirable characteristics for a community. They may evaluate altered social standards, which may make people feel welcomed and at ease. As a consequence, there is significant importance of culture and social context to comprehend the "wiser" generation.

However, as a result of the quick shift in societal norms and the effects of globalisation, industrialization, and westernisation, our family structure has altered, as have the family members' lifestyles. Joint family systems become disorganised as a result, and they begin to switch to nuclear families.

The intergenerational discontinuity brought about by this change in value systems is also affecting parent-child interactions. Middle-aged children's complete surrender to their older parent's wishes has shifted into a new role play for the elderly.

Family disorganisation and desire for money wrecked the family members' ability to adjust and live in harmony. The family members' workload rose as a result of the competition, making a productive life necessary. It causes the ageing bodies to become separated. They are no longer enjoying their old age, and they are also unable to take delight in their retirement. They are no longer given the proper consideration that they have always provided to the younger generation.

Elderly people become more dependant or less productive as they age. It may make older persons' lives depressing. Also, Due to their weakened sense of emotional controllability, senior citizens frequently find themselves in a deadlock during their frantic search for meaning in life and arrive at a compromise in the adjustment process.

The trend for older individuals to become more traditional is common. This inclination reflects in increased consistency in social and political beliefs as well as rigidity and uncompromising behaviour (Dibney, 1975). The younger generations frequently see them as feeling abandoned and alone. They appear to think about themselves as failure at the same time.

However, rather from being a product of any pessimism inherent in the ageing processes, this attitude is rather a result of honest perceptions of the barriers that society places in the path of older people. Additionally, as individuals mature, they also get wiser as a consequence of their experiences (Butler, 1975). They gain a subjective understanding of what life is all about and of death.

Due to the concept in reincarnation, ageing and death are not considered to be final events in India. Death is viewed with something like a higher feeling of philosophic sadness and understanding of withering away. It is important to make an effort to make them as pain-free as possible during their final days.

1.2. PSYCHOLOGICAL ISSUES IN OLD AGE

One has to investigate how the idea of ageing specifically has evolved in both eastern and western culture. The industrialised world has been struggling to care for its rapidly aging population and find practical solutions whereas the severity of this issue, however, has so far mostly gone unnoticed in emerging nations. The elderly has always been revered in India as knowledge repositories, the finest educators, and the key to fostering a sense of national unity. They possess patience, the ability to study socioeconomic and political trends with objectivity, and the ability to balance extreme viewpoints. Old age is seen as having entered a "golden stage" of life, a time of self-awareness, wisdom, introspection, adventure, and sharing. It gives the chance to humanise the existing sick and gloomy society with the gained objective viewpoint and clean eyed knowledge.

The majority of the physical issues that come with being older are disabilities brought on by slowing down. Age-related problems include an increased susceptibility to infections, an inability to fight off infections, degenerative diseases including arthritis, atherosclerosis, cancer, cataract-induced blindness, hearing loss, dementia, and a decline in cognition. Incorporating the many age-related preconceptions and pictures results in a very unfavourable perception of old age, as well as the function and potential of the elderly. It is a prevalent misconception that elderly people have pretty depressing lives marked by social exclusion, neglect from the family, a plethora of health issues, and a lot of mental stress. Retirement from paid work is viewed as creating a void that cannot be filled. It is often believed that elderly individuals are incapable of engaging in sexual activity and are not motivated to do so. The idea that elderly people are "dependent" and weak is somewhat more harmful and crippling to them.

The transformation brought about by retirement has a significant impact on elderly's personalities as well (Fisher, 1978). Work experiences have a direct impact on a retiree's health, financial situation, and leisure activities. Around the world, there are significant differences in the age of retirement. The age of retirement in India appears to be influenced by a variety of circumstances, including bad health, the economic situation, employment expectations, etc. Retirement's effects on the psychosocial façade of older people results in:

- Loss of coworkers and social support (Ochberg, 1987);
- Loss of chances to feel competent, competitive, and autonomous (Siscovick, Strogatz, Weiss, and Rennert, 1990);
- Loss of a setting where one might take risks and feel successful (Filene, 1981);
- Loss of money.
- Observable decline in quality of life
- New developmental conflicts

The biggest issue facing the elderly is financial instability. An earning member suddenly receives either none (in the case of pensionable work) or barely half of his usual income (in case of non-pensionable jobs). He or she must learn to live within their means and reduce any routine costs. The majority of the time, this is not feasible because the pension rate as compensation does not keep up with the cost of living, forcing an elderly person to hunt for employment (and to increase his earning potential) even for basic needs. Economic loss most strongly affects social life. The person is no longer considered while making decisions in the home and is reduced to a minor social issue. The main effect of a person's combined loss of economic potential and social standing is a sense of helplessness.

It has also been found that a variety of variables, including the following, can cause old people to get angry:

- Generational gaps make it harder for parents to adjust to their children.
- Restrictive resource availability
- Loss of loved ones, such as a spouse, close relatives, and friends
- Sensitivity to many illnesses
- Limited activity schedule and subsequent participation in many activities
- Problems with looking back and retrospectively trying to find a balance in life between accomplishments and goals

Inadequate resources and social pressure impair general functioning in old life. Older people experience socio-psychological irritation due to attitudes regarding old age, a decline in social status, issues with disconnectedness, and the generation gap (Mohanty, 1989; Siva Raju, 2011). Additionally, having a busy life, being in healthy condition, having access to money, having a spouse, and maintaining social connections are all major factors that influence happiness in old age. Therefore, it is important to encourage elderly people to participate in

social activities since it gives them the chance to give back to society and, in turn, earn self-fulfilment, a feeling of purpose, and, if necessary, a means of existence.

Since lonely persons are more inclined to withdraw from social interaction and are less likely to seek emotional support, loneliness and depressive symptoms have a substantial positive correlation in middle-aged and older adults (Cacioppo et al. 2006, Griffin, 2010; Cachadinha, Pedro & Fialho, 2011).

The discontent with the current situation among older people was higher in metropolitan regions, according to a survey by Agewell (2012). In terms of living arrangements, resources, and amenities, rural and urban regions provide noticeable differences. In urban regions where older people organise themselves for their convenience, whether it is for merely recreational purposes or advocacy for their rights and demands, senior citizen centres, groups, and clubs are becoming more and more common.

Gueldner, Loeb, Morris, and Penrod (2001) evaluated life satisfaction and mood in a sample of 138 cognitively and ambulatory elderly (95 women and 43 men aged 60-96 years), including 70 who resided in healthcare institutions and 68 who lived separately in the community. Elders who lived in the community reported higher levels of life satisfaction and performed better on the Vigor Profile of Mood State's (POMS) Activity subscale than those who were in nursing institutions. Residents in nursing homes had higher depression scores. On the POMS's Anger-Hostility and Fatigue-Inertia subscales, there were no significant group differences.

Research on older individuals' reminiscence, personality characteristics, life perspectives, and perceived stress was conducted by Cappeliez and O'Rourke in 2002. The NEO-Five Factor Inventory, The Life Attitude Profile-Revised, The Reminiscence Functions Scale, and the Psychological Scale of Stress Measure were performed by 93 senior citizens (aged 57–92 years). The negative reminiscences were characterised by a lower extraversion and a stronger propensity to dwell on unpleasant experiences. The meaning seekers were characterised by a higher frequency of memories involving identity, life meaning, and death as well as a predisposition for being open to new experiences. The infrequent reminiscences were characterised by reduced remembrance frequency for each of the four functions, as well as lower levels of subjective stress and neuroticism.

In a sample of 40 people between the ages of 60 and 85, Ong and Bergeman (2004) investigated the complexity of both positive and negative emotions. An assessment framework lasting 30 days was used to gauge the participants' emotional experiences. The findings imply that different susceptibility and resilience traits are related to how an individual experiences both positive and negative emotions inside themselves. Less distinctiveness and fewer co-occurrences of happy and negative emotional experiences were linked with individual variations in perceived stress and neuroticism.

Mukherjee, Dogra, Das, and Basu (2008) conducted a study to explore the factors associated with death anxiety in elderly individuals residing in both old age homes and their own homes. The research focused on the impact of meaning in life, fulfillment of that meaning, coping mechanisms, and stressful life events in the preceding year. The study involved a total of 60 males and 60 females, with thirty participants residing in nursing homes and thirty in their own homes. Each participant provided relevant data for the analysis.

The findings revealed significant insights into the relationship between death anxiety and key variables. Notably, strong fulfillment of one's life purpose and a solid framework for meaning were found to have a considerable negative influence on death anxiety. These results shed light on the importance of finding meaning in life and adopting effective coping strategies to alleviate death-related fears among elderly individuals. According to academic research assessing the quality of life of the elderly, they had a much worse QOL in the areas of social relationships, psychological health, and physical health. Additionally, senior adults who did not have a formal education, were not pension recipients, did not live with a spouse, had

concomitant illnesses, and belonged to a nuclear family had considerably lower QOL29 scores. Numerous Systematic Reviews and Interventional Randomized Control Trials on the impact of individual or combinations of six interventions, including psychoeducational programmes, physical activity, breathing exercises, counselling, and reminiscence therapy, have demonstrated significant improvements in ADL, psychosocial problems, and QOL in the elderly population.

Aging is a time for reflection on oneself and one's life. For many, it represents a time of serenity and senility rather than a stage of life during which a person might continue to develop toward the fullness of his identity and inner ideals. However, it can also be a stage of life that is characterised by a physical or mental impairment, a propensity for illness, and a gradual increase in unhappiness and suffering (Arora and Chadha, 1995). Due to the significant increase in the population of elderly people, the issue of old age has taken on greater significance in modern society. Psychologists have placed differing emphasis on various elements of ageing and assigned varying weights to the significance of biological restrictions on ageing against significance of the social environment. The goal of Ageing psychology is to provide an explanation for behavioural changes that occur throughout the adult stage of life, which comprises roughly three-fourths of the typical lifespan.

According to Rowe and Kahn (1998), successful ageing consists of three elements: staying healthy, participating in life, and maintaining high levels of cognitive and physical function (Singh, 2014). It is essential to remember that the majority of elderly people maintain their independence and good health. Their capacity can be affected by a variety of factors, including genetic predispositions like senescence, societal contexts like eldering, and personal decisions towards activity or inactivity like gerontology.

According to Rubio, Lazaro, and Sanchez Sanchez (2009), older people who participate in social and physical activities can maintain their physical and cognitive abilities and possibly postpone the onset of age-related increasing reliance. Additionally, older people who are in good physical and mental health are able to continue contributing to society and maintain several relationships as a result of their leisure and physical activities (Cachadinha, Pedro & Fialho, 2011). Active ageing promotes the continuous involvement of the elderly to improve their well-being in a similar vein of thought.

Some activities assist senior citizens in acquiring information and skills that improve their mental outlook and sense of self, giving them a feeling of purpose (Harlow-Rosentraub, Wilson & Steele, 2006; Zedlewski & Butrica, 2007). Additionally, they said that those who frequently work or volunteer live longer, have lower mortality and depression rates, are healthier, stronger, and happier, and have superior cognitive abilities due to the stimulating settings and a feeling of purpose (Singh, 2014).

Research by Lowis, Edwards, and Singlehurst (2011) examined the effects of preretirement work and self-rated health (SRH) on retired people's ability to achieve life satisfaction. A survey was administered to 121 community-dwelling men and women (M age = 75.8 years, SD = 7.1) to gauge their level of life satisfaction, self-rated health, stress related to retirement, how they were adjusting to retirement, and what they remembered about their pre-retirement job. Results showed that ratings on a life satisfaction scale and SRH, retirement stress, and retirement adjustment all had positive and substantial associations. According to path analysis, former career characteristics may have negative effects on current life satisfaction, while volunteering seems to be beneficial for both life happiness and SRH. The authors came to the conclusion that proper retirement preparation and training can mitigate or prevent many of the negative impacts of preretirement employment.

1.3. REMINISCENCE THERAPY

One of the earliest psychotherapies designed specifically for elderly individuals was reminiscence therapy (RT). Erikson's stage theory of personality development served as the initial foundation for this treatment (1982). According to the treatment model established from this idea, some therapeutic work will concentrate on the initial conflict that was unsuccessfully addressed while also working to settle the ongoing conflict. Life review and memory are the main psychotherapy approaches used in RT. Erikson asserts that the struggle of older people as they try to integrate and make sense of the experiences in their life is between integrity and despair. These recollections during therapy might reveal to the therapist if the past is being accepted or rejected. Additionally, they can reveal the stage at which the elderly person faced their first failed resolution and, consequently, what corrective therapeutic activity may be required for a good treatment outcome.

1.4. LIFE REVIEW THERAPY

Another useful method is life review, when patients are urged to discuss significant incidents from each developmental stage in an effort to reach a satisfactory conclusion for that stage. Butler developed this strategy (1963). In these sessions, patients are urged to bring in items from that time period, such as clothes, music, or photos, to help with their healing. These accessories serve as reminders of the struggle and a means of bringing previous events into the present. These topics are always brought up in an effort to better integrate past accomplishments and failures so that the elderly patient can concentrate on the present and arrive at a point where they believe their lives are coming to an end.

1.5. YOGA

Yoga is thought to slow down ageing and avoid the majority of age-related health issues. By providing the spine flexibility, firming up the skin, releasing stress from the body, strengthening the abdominal muscles, and correcting body postures, it slows down the ageing process. Dr. Paul Galbraith (1993) said that yoga has a variety of anti-ageing benefits, including

- (1) Enhanced Immunity Against Diseases - Yoga results in a healthy, robust body with heightened immunity. The common cold and major illnesses like cancer are all affected by this enhanced resistance.
- (2) Greater Vitality - Yoga has a positive impact on the glands and brain.
- (3) Rejuvenation of Glands - The pituitary, thyroid, adrenal, and sex glands are all significantly impacted by yoga. This results in a sense of wellbeing, delays the onset of ageing, and maintains sexual vigour throughout old age.
- (4) Younger Appearances - Yoga results in a natural "face-lift" by minimising facial wrinkles.
- (5) Enhancements to Hearing and Vision - Yogic techniques aid in preserving the health of the neck, which contains numerous blood vessels and nerves that feed the eyes and hearing.
- (6) Yoga has rejuvenating effects on the glands and neurological system, which promote good mental and emotional health.

1.6. SPIRITUAL THERAPY

The use of spiritual activities during psychotherapy is possible (Richards & Bergin, 1997). Spiritual practises are highly focused activities with the aim of developing spiritual traits that can lead to a healthy, balanced living. Other spiritual activities besides healing prayer include reflection and meditation, fasting, reading from holy texts, remorse and forgiveness, worship and ritual, community service, seeking spiritual guidance, and moral training. Spiritual issues are innately raised by bereavement, mourning, role changes, physical impairments, chronic sickness, increased reliance, and a variety of other characteristics of ageing.

1.7. LIGHT THERAPY

Seasonal depression is treated by exposing patients to bright light. For non-seasonal depression, light therapy has also been suggested. It is thought that the lack of sunshine during the wintertime delays the circadian rhythm, which in certain people might result in depression. Early morning exposure to light causes a phase advance and eliminates the gloom.

1.8. MASSAGE THERAPY

With centuries-old roots, massage therapy includes the skilled manipulation of soft tissue for therapeutic purposes. Two explanations for a depressive affect have been postulated by researchers (Field, 1998).

- Electroencephalogram activity changes during massage from a right frontal pattern (linked to depressive mood) to a left frontal or symmetrical pattern (associated with happy affect).
- Massage produces vocalisations, facial emotions, and vagal activity, all of which help people feel less depressed.

1.9. AROMATHERAPY

Plant essential oils can be heated and utilised as massage oils or as a diffuser in a space. The essential oils bergamot, geranium, German chamomile, lavender, and rosemary have all been suggested for use in treating depression and other mood disorders likewise.

1.10. BIBLIOTHERAPY

A conventional therapy in the form of a book is given to the patient, who completes it on their own. Cognitive behaviour therapy is mostly used in bibliotherapy. It is a guidebook that teaches people how to practise coping mechanisms for difficult emotions in daily life.

1.11. PLEASANT ACTIVITIES

A person who is sad lists their favourite hobbies and engages in them more often. It has been shown that depressed individuals participate in less enjoyable activities. Consequently, exerting more effort can make them feel better.

1.12. POSITIVE PSYCHOLOGICAL INTERVENTIONS

Positive Psychology Interventions (PPIs) encompass a set of evidence-based techniques and tools aimed at fostering wellbeing, happiness, and positive emotions (Keyes, Fredrickson, & Park, 2012). Over the years, psychologists have tended to prioritize treatment over prevention (Bolier et al., 2013). Sin and Lyubomirsky (2009) propose that all positive psychology treatments must possess two crucial elements: a focus on cultivating contentment through positive thinking and emotions, along with the ability to sustain long-lasting effects.

In 2014, Proyer, Gander, Wellenzohn, and Ruch conducted a study to assess the effectiveness of four self-administered positive psychology interventions—gratitude visit, three good things, three funny things, and using signature strengths in a new way—on happiness and depressive symptoms compared to a placebo control exercise (early memories). The study involved 163 female participants aged between 50 and 79, who engaged in their assigned treatments or the placebo control for one week, with assessments of happiness and depression symptoms conducted five times (pre- and post-test, 1, 3, and 6 months). The results indicated that three of the four interventions—gratitude visit, three positive things, and utilizing signature strengths in a different way—led to increased happiness, while the other two interventions—three funny things and utilizing signature strengths—led to decreased depression.

Ramrez, Ortega, Chamorro, and Colmenero (2013) implemented a training programme that incorporated autobiographical memory, forgiveness, and gratitude for a sample of 46 individuals aged between 60 and 93. The study assessed various outcomes, including life satisfaction, trait and state anxiety, depression, general and specific memories, and depression. Compared to the placebo group, the experimental group exhibited significantly lower levels of state anxiety and depression, along with higher levels of specific memories, life satisfaction, and subjective happiness. This study provides compelling evidence for the effectiveness of positive interventions in the field of psychogerontology, emphasizing improvements in personal and social wellbeing among older individuals.

A meta-analysis was conducted to examine the effectiveness of forgiveness programmes in older persons. Studies encouraging forgiveness in older adults were gathered from international databases (Medline, PsycINFO, Scopus, and Web of Science) published between 1990 and 2020. Most of the intervention trials involved community-dwelling senior citizens engaged in group therapies, predominantly comprising women, which was identified as a significant limitation in several studies. The results revealed that participants receiving forgiveness interventions reported significantly higher levels of forgiveness and greater improvements in depression, stress, and anger compared to those who did not receive any treatments. Additionally, forgiveness interventions were associated with stronger positive thoughts, such as satisfaction with life, subjective happiness, and psychological wellbeing.

The study conducted by Salces-Cubero, Ramírez-Fernández, and Ortega-Martínez (2019) explores the impact of three strengths training-based interventions—savoring, gratitude, and optimism—on the wellbeing of older adults. The research reveals interesting findings regarding the differential effects of these interventions. Participants who underwent savoring and gratitude training experienced significant improvements in their overall wellbeing, including increased life satisfaction, subjective happiness, positive affect, and resilience, as well as reduced negative affect. Surprisingly, the optimism training did not yield noticeable effects on these wellbeing measures. This study highlights the potential benefits of savoring and gratitude interventions in enhancing the psychological wellbeing of older individuals and provides valuable insights for promoting their mental health and coping strategies in the aging process.

The underlying principle is that individuals, especially the elderly, can exert some control and responsibility over their own quality of life, contributing to successful aging and good health. Various research studies have proposed effective methods for navigating significant life changes skillfully, and studying these therapeutic approaches can promote healthy aging. Many active older adults are engaged in part-time jobs or volunteer work to support their families and communities. However, perceptions of aging and the associated physical and cognitive challenges differ among individuals. Therefore, gaining a deeper understanding of effective aging, particularly the role of psychological interventions in promoting and maintaining mental and physical health, is essential.

1.13. CONCLUSION:

As the elderly population continues to grow, addressing psychological issues in old age becomes a crucial aspect of promoting overall wellbeing. This review highlights several evidence-based psychotherapeutic interventions that have shown promise in supporting the mental health of older adults. Reminiscence therapy and life review therapy offer opportunities for individuals to reflect on their past experiences and find meaning and closure, leading to improved emotional resilience and life satisfaction. Yoga and spiritual therapy can enhance emotional regulation, promote relaxation, and foster a sense of purpose and connectedness. Light therapy has shown potential in managing mood disorders, particularly in the context of seasonal affective disorder. Massage therapy and aromatherapy offer therapeutic benefits in reducing stress, anxiety, and depression, thereby improving overall mental health. Bibliotherapy can provide a valuable self-help tool, empowering individuals to work through emotional challenges at their own pace. Engaging in pleasant activities and positive psychological interventions have been found to boost mood and increase feelings of happiness and contentment in older adults.

Thus, integrating evidence-based psychotherapeutic interventions into the care and support of the elderly can significantly contribute to their emotional wellbeing and overall quality of life. However, it is important to consider individual preferences, cultural backgrounds, and specific needs when implementing these interventions. Further research is needed to deepen our understanding of these approaches and their long-term effects on the mental health of the elderly population, ultimately guiding the development of personalized and effective mental health care for older adults.

REFERENCES

- Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: A meta-analysis of randomized controlled studies. *BMC Public Health*, 13(1), 1-20.
- Butler, J., & Ciarrochi, J. (2007). Psychological Acceptance and Quality of Life in the Elderly. *Quality of Life Research*, 16, 607-615.
- Cachadinha, C.B., Pedro, J. A., & Fialho, C. J. (2011). Social participation of community living older persons: Importance, determinants and opportunities. In Proceedings Include 2011: 6th International Conference on Inclusive Design "The Role of Inclusive Design in Making Social Innovation Happen", London, UK, 18-20 April 2011. Helen Hamlyn Centre for Design, Royal College of Art. ISBN 978-1-907342-29-5. Retrieved from <http://resolver.tudelft.nl/uuid:43c6504b-4cbe-4f01-8918-0b428cebbfbb>.

- Morrison, M. H. (1982). *Economics of Aging: The Future of Retirement*. Van Nostrand Reinhold.
- Emmons, R.A. (2003). Personal goals, life meaning, virtue: Wellsprings of a positive life. In: Keyes C.L.M., Haidt J, editors. *Flourishing*. Washington, DC: American Psychological Association; p. 105–28. 10.1037/10594-005
- Galbraith, D. P. (1993). *Reversing Ageing The Natural Way*. Port Melbourne: Lothian.
- Keyes, C. L., Fredrickson, B. L., & Park, N. (2012). Positive psychology and the quality of life. In K. C., Land, A. C., Michalos & M. J. Sirgy (Eds.). *Handbook of social indicators and quality of life research* (pp. 99-112). Dordrecht: Springer.
- López, J., Serrano, M. I., Giménez, I., & Noriega, C. (2021). Forgiveness Interventions for Older Adults: A Review. *Journal of clinical medicine*, 10(9), 1866. <https://doi.org/10.3390/jcm10091866>
- Lowis, M. J., Edwards, A. C., & Singlehurst, H. M. (2010). The Relationship Between Preretirement Occupation and Older Adults' Life Satisfaction and Self-Rated Health. *The Journal of Psychology Interdisciplinary and Applied*, 145(1):59-72.
- Lyubomirsky S, King L, & Diener, E. (2001) Is happiness a good thing? The benefits of chronic positive affect. Work. Pap., University, California., Riverside.
- Lyubomirsky S. (2008). *The How of Happiness: A Scientific Approach to Getting the Life You Want*. New York, NY: Penguin Press.
- Mohanty, S.P. (1989). 'Demographic and socio-cultural aspects of ageing in India: some emerging issues', in R.N. Pati and B. Jena (eds.), *Elderly in India: socio-demographic dimension*. Ashish, New Delhi, pp. 37-45.
- Ong, A. D., & Bergeman, C. (2004). The Complexity of Emotions in Later Life. *The Journals of Gerontology Series B Psychological Sciences and Social Sciences*, 59 (3):P117-22.
- Proyer, R.T., Gander, F, Wellenzohn, S., Ruch, W. (2014). Positive psychology interventions in people aged 50-79 years: long-term effects of placebo-controlled online interventions on well-being and depression. *Aging Mental Health*.18(8):997-1005.
- Ramírez, E., Ortega, A.R., Chamorro, A., & Colmenero, J.M. (2014). A program of positive intervention in the elderly: Memories, gratitude and forgiveness. *Aging Mental Health*, 18(4):463-70.
- Richards, P. S., & Bergin, A. E. (1997). *A spiritual strategy for counseling and psychotherapy*. Washington, DC: American Psychological Association.
- Rowe, J. W. & Kahn, R. L. (1998). *Successful aging*. New York: Pantheon Books.
- Rubio, E., Lázaro, A., & Sánchez-Sánchez, A. (2009). Social participation and independence in activities of daily living: a cross sectional study. *BMC Geriatrics*, 9(1), 26.
- Salces-Cubero, I. M., Ramírez-Fernández, E., & Ortega-Martínez, A. R. (2019). Strengths in older adults: differential effect of savoring, gratitude and optimism on well-being.

- Aging & mental health*, 23 (8), 1017–1024.
<https://doi.org/10.1080/13607863.2018.1471585>
- Arora, M. & Chadha, N.K. (1995). 'Social Support and Life Satisfaction of Institutionalized of Elderlies'. *Indian Journal of Gerontology*, 9(3/4): 74-82.
- Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: A practice-friendly meta-analysis. *Journal of Clinical Psychology*, 65(5), 467-487.
- Singh, V. (2014). *Life Experiences of Community Dwelling Elderly Women in Delhi*. M.Phil. Thesis. Tata Institute of Social Sciences, Mumbai.
- Siva, R. S. (2011). Studies on Ageing in India: A Review, BKPAI Working Paper No. 2, United Nations Population Citation Advice: Fund (UNFPA), New Delhi.
- Subramuniaswami, S. S. (2008). Aging Gracefully. *Hinduism Today*.
- Willigen, J., & Chadha, N.K. (1999). Social Aging in a Delhi Neighborhood. London: Bergin and Garvey.
- Woods, B., O'Philbin, L., Farrell, E. M., Spector, A. E., & Orrell, M. (2018). Reminiscence therapy for dementia. *The Cochrane database of systematic reviews*, 3(3), CD001120.

CHAPTER 15

A Systematic Review on Incorporation of Artificial Intelligence in Mental Healthcare

Nishtha Jain¹ & Angela Mathias¹

¹ Shree Guru Gobind Singh Tricentenary University, Gurugram, India

Abstract: Introduction: Technology is becoming a crucial part of human existence and has become an extension of oneself. Currently a huge gap exists between the demand for mental healthcare versus the number of mental healthcare professionals available. Artificial Intelligence (AI) mediated mental health care services can help bridge the gap by aiding the therapeutic process. Methodology: Systematic literature review was carried out of the research's conducted in the last one decade in the field of technology and mental healthcare. Keywords and specific research domain were focused upon for screening and selecting articles. Results and Discussion: An extensive analysis of research helped outline the role that technology can play in the field of mental healthcare. The current research focused on incorporating AI as a tool in the diagnosis and management of a range of disorders such as developmental disorders, anxiety, depression, OCD and Alzheimer's. Incorporating AI in mental healthcare will help reduce the workload on clinicians while helping cater to a greater client base. AI does not aim to replace clinicians but rather facilitate the process. Conclusion: The paper analysed and discussed how AI can be integrated in mental healthcare for a range of disorders. Clinicians should actively plan on how to use AI effectively to better cater to the mental health needs of the public.

Keywords: artificial intelligence, mental healthcare, systematic review

1.1. INTRODUCTION

Technology has impacted humankind in both positive and negative ways with technological advancements providing new avenues for accessing healthcare data and for implementing therapeutic techniques. Nowadays fitness trackers like Apple watch and Fitbit are extensively being used. They provide the advantage of being in physical contact with the user for long periods of time. Using sensors, a rich repertoire of clinical data is obtained by them in a naturalistic and a minimally intrusive manner. These devices collect physiological, behavioural and environmental data using ambient sensors and self-reported measures that can be directly sent to healthcare professionals for understanding and supporting the individual's wellbeing.

Artificial Intelligence (AI) does not focus on replacing clinicians but rather on making them more effective by maximizing the potential of both machines and humans. Generally, patients visit clinicians only once in a month or once in a fortnight leaving the impact of their illness in their everyday lives out of direct clinicians' knowledge and providing only a small window to understand the client's illness. Thus, technology can help record everyday healthcare patterns of clients by monitoring nutritional levels, medication adherence and physiological signs, to allow clinicians to be holistically aware of their patients' health condition. In case of chronic illnesses, a cure is usually not available, making daily functioning tracking the only way of analyzing improvement/deterioration to determine treatment options.

As AI helps collect clinically relevant data in a naturalistic and in situ manner it facilitates better clinical decision making (D'Mello, 2016). For instance, AI has been used to analyse biological and clinical data for biomedical and mental health care along with neuropsychiatry. AI has also been used to identify early warning signs, diagnosis and prognosis of disorders such as autism, schizophrenia, Alzheimer's and epilepsy.

Depression being one of the most widely experienced mental health issue, it has a profound impact on individuals' everyday functioning. It is significantly associated with suicide as well. The research by Joshi and Kanoongo (2022) made use of chat bots, facial expressions, images and texts on social platforms to detect the individuals emotional state and depression. This can potentially act as a good alternative to the lengthy scales and measures used to identify depression in clinical setups.

In case of ADHD, eye movements and gaze are tracked by a device to provide estimates of attention and focus during various activities like studying which in turn can help determine the areas that need to be worked upon (D'Mello, 2016). Similarly in behavioral health care augmented reality has been used to deliver exposure therapy by creating anxiety provoking stimuli using virtual reality. Augmented reality provides a cost-effective way of safely exposing individuals to their particular feared object or situation.

However, what applies in one medical or healthcare context may not apply to another - a one size fits all approach is not applicable. Thus, systems need to be dynamic and change constantly as the world evolves. Temporal modeling involves making treatment decisions based on data collected over time by continually reevaluating ongoing treatment to optimise clinical care for clients. This model is especially useful in mental healthcare where clinicians must constantly reevaluate their decisions and adjust treatments based on new observations (Luxton, 2016).

The present review focused on understanding the role played by AI as a bridge between mental healthcare services and clinicians for addressing multiple disorders. The current research suggests the use of AI in frequently diagnosed disorders in respective manner:

In case of Alzheimer's, AI can be programmed to provide clients with reminders of what do to next based on a daily scheduled planned by the client along with the clinician. With the help of GPS technology, AI can provide direction whenever the client gets lost. Using cameras and sensors it can help clients identify objects and their use whenever the client experiences confusion regarding the use of certain objects.

In case of OCD to help with compulsion, a digital log can be created using smartwatches or mobile phones that allow the client log whenever a task is carried out in order to avoid repetition of the task. For instance, a check is marked for having checked the door lock or for washing hands so that the client is made consciously aware to not repeat it.

In case of anxiety, AI sensors, such as those in smart watches can be used to identify and record abnormal physiological signs and symptoms. This data can be instantly shared with clinicians and caretakers to help the client in case of emergencies. The data can also act as a warning sign for a client to seek immediate help if they detect abnormal bodily signs such as increased heart rate, breathing and blood pressure.

AI has the capability to address social problems unique to global well-being and expedite the attainment of global goals associated with mental health and well-being. Given the huge gap in the demand for mental health care professionals versus the number of therapists readily available, use of AI in mental healthcare can help the country address the gap.

1.2. METHOD

The research included qualitative and quantitative studies exploring

- (1) Application of AI in overall patient care

- (2) Use of smart AI sensors and wearables in healthcare
- (3) Adaptive computer games for supporting child psychotherapy
- (4) Ethical issues around the use of AI in mental healthcare
- (5) The use of robotics in healthcare
- (6) The inclusion criteria for the papers was based on their keywords, research domain and the year of publication (spanning from 2012 to 2022).
- (7) Systematic review was conducted to integrate research finding to generate new insights.

1.3. DISCUSSION

“To improve mental health outcomes, it is essential to concurrently innovate and integrate across health systems” - Anonymous

Given AI’s relevance for healthcare, the current review paper focused on the various domains where AI can be implemented. This can help enhance healthcare’s efficiency and cater to a greater number of client base with minimal resources. AI can help at multiple levels in the healthcare system by contributing to automated mental state detection, clinical decision making, and technology aided therapy. AI can be used effectively to help the client adjust to the disorders symptomatology, thereby reducing the stress caused by the disorder on the client, the healthcare system and their family. The current review focused selectively on developmental disorders, mood disorders, Alzheimer’s disease and OCD.

Erguzel and colleagues (2015) worked on developing an AI model was developed to accurately distinguish between OCD and trichotillomania given the similarities between the two. With the use of Quantitative EEG and AI, the hybrid approach was able to distinguish between the two with 81.04% accuracy. Similarly, in case of anxiety and depression, mental healthcare apps have been built with a variety of self-care interventions and techniques such as mindfulness and gratitude journaling to accelerate the rate of recovery.

AI can support the process of triaging patients and for diverting patients who do not require interventions. Understanding the clients’ biological vulnerabilities, neuroanatomical states, personal life history and the clinical manifestations along with social functioning can help clinicians focus on the treatment rather than labeling the client with a diagnosis. AI can aid in enhancing the efficiency and flow of healthcare systems by ensuring that right services are channeled to the right clients and by replace triage with self-reported screening (Cecula et al., 2021).

Figure 1. Contribution of AI in Healthcare

Note. This figure was produced in 2021, summarising the six domains where AI can contribute towards mental healthcare. From “AI in patient flow: Applications of artificial intelligence to improve patient flow in NHS acute mental health inpatient units,” by Dawoodbhoj, F. M., Delaney, J., Cecula, P., Yu, J., Peacock, I., Tan, J., and Cox, B, 2021, *Heliyon*, 7(5), e06993.

The given Figure 1 summarizes the areas where AI can contribute to enhance the efficacy of mental healthcare services. 6 primary domains are addressed which have been broadly covered in the given review. However, the domain of public health remains a limitation in the Indian context. Given the limited availability of resources, it is not feasible to have AI mediated healthcare setups in the rural areas. However, the approach remains applicable for urban setups provided that low-cost technology is made available.

Robots typically refers to physically embodied systems that are capable of representing physical changes in the environment. Effectors, which help the robot move (locomotion) or by moving objects in the environment i.e., manipulation helps robots enact the change based upon the data obtained from sensors that facilitate decision making, thus making robots potentially useful in mental healthcare. Robotic technologies are being actively developed to treat a range of healthcare issues such as cognitive disorders and autism (Riek, 2016). They have also been used to understand sensory overload and social deficits in case of autism and to assist patients with locomotor issues and in case of Alzheimer’s.

Robotics can be especially relevant for treating children with Autistic Spectrum Disorder (ASD) as face-to-face contact with another individual is often hard for them. Example, “Functional games”, includes video games that were programmed to aid children overcome strenuous life events and develop coping strategies. Besides ASD, robotics and computer games can be utilized in the treatment of specifically targeted psychological disorders, such as anxiety disorders (e.g., Treasure Hunt and Relax to Win), and obsessive-compulsive disorder (OCD). Robotics have also been useful for providing clinical data, example PARO. PARO has been found to have beneficial therapeutic and social effect on geriatric dementia clients placed in nursing homes. It has been associated with improved psychological health and reduction in stress levels (Bennett & Doub, 2016).

In addition to robotics, virtual humans (Mani Sekhar et al., 2022) have also been used on mobile platforms to encourage clients to follow their healthcare routine and to provide clients with advice 24x7 in various domains of healthcare. For instance, integrated accelerometers encourage sedentary clients to walk more. Moreover, the close contact

throughout the day creates a trusting working alliance between the virtual human and the client.

Despite the benefits associated with the use of AI in healthcare, various factors continue to influence individuals' preference for AI based psychotherapy. In a study by Aktan and colleagues (2022) it was found that majority of the clients preferred human psychotherapists over AI based psychotherapy in terms of trust with personal data. However, a significant number preferred AI based psychotherapy for discussing embarrassing events and in terms of availability 24x7 from anywhere. Moreover, prior experience and use of AI or technology impacted individuals' preference for and their level of comfort with AI mediated therapy. Individuals with the personality trait of agreeableness were also seen to be more accepting of technology mediated therapy.

While AI promises to provide a wide range of advantages, it also comes with some drawbacks. Treatment recommendations cannot be made at just one time point and need to be actively adjusted as healthcare data changes. AI often gives standard repetitive responses for a set of conditions, while in reality much variation and individualized characters are seen across clients. Very often results from research trials don't generalize well to the real-world settings. Also, a lot of the researchers tend to get outdated by the time they reach clinical setups. Thus, clinicians often ignore the suggestions given by AI and rely on clinical judgements, making it necessary to develop AI in a manner that matches the cognitive process of clinicians as far as possible.

Thus, AI should continuously learn from mistakes and from clinical data to improve the accuracy of predictions/recommendations made. It can also help discover patterns and new knowledge in an automated manner within a few days that human experts may not discover for years. While AI can provide objective, personalized treatment plans to clients, there is an effort to make future technology more ethically sound and compassionate towards a diverse set of people. Thus, it can be concluded that AI can contribute to the field of mental healthcare in multiple ways, however certain loopholes exist that need to be worked upon for AI to be effectively implemented in the practical clinical settings.

REFERENCES

- Ahmed, A., Ali, N., Aziz, S., Abd-alrazaq, A. A., Hassan, A., Khalifa, M., Elhusein, B., Ahmed, M., Ahmed, M. A. S., & Househ, M. (2021). A review of mobile chatbot apps for anxiety and depression and their self-care features. *Computer Methods and Programs in Biomedicine Update*, 1, 100012. <https://doi.org/10.1016/j.cmpbup.2021.100012>
- Aktan, M. E., Turhan, Z., & Dolu, İ. (2022). Attitudes and perspectives towards the preferences for artificial intelligence in psychotherapy. *Computers in Human Behavior*, 133, 107273. <https://doi.org/10.1016/j.chb.2022.107273>
- Alkalay, S., Dolev, A., Rozenshtein, C., & Sarne, D. (2020). Co-Op World: Adaptive computer game for supporting child psychotherapy. *Computers in Human Behavior Reports*, 2, 100028. <https://doi.org/10.1016/j.chbr.2020.100028>
- Bennett, C. C., & Doub, T. W. (2016). Expert Systems in Mental Health Care. In *Artificial Intelligence in Behavioral and Mental Health Care* (pp. 27–51). Elsevier. <https://doi.org/10.1016/B978-0-12-420248-1.00002-7>
- Cecula, P., Yu, J., Dawoodbhoy, F. M., Delaney, J., Tan, J., Peacock, I., & Cox, B. (2021). Applications of artificial intelligence to improve patient flow on mental health inpatient

- units—Narrative literature review. *Heliyon*, 7(4), e06626. <https://doi.org/10.1016/j.heliyon.2021.e06626>
- D'Mello, S. K. (2016). Automated Mental State Detection for Mental Health Care. In *Artificial Intelligence in Behavioral and Mental Health Care* (pp. 117–136). Elsevier. <https://doi.org/10.1016/B978-0-12-420248-1.00005-2>
- Dawoodbhoy, F. M., Delaney, J., Cecula, P., Yu, J., Peacock, I., Tan, J., & Cox, B. (2021). AI in patient flow: Applications of artificial intelligence to improve patient flow in NHS acute mental health inpatient units. *Heliyon*, 7(5), e06993. <https://doi.org/10.1016/j.heliyon.2021.e06993>
- Erguzel, T. T., Ozekes, S., Sayar, G. H., Tan, O., & Tarhan, N. (2015). A hybrid artificial intelligence method to classify trichotillomania and obsessive-compulsive disorder. *Neurocomputing*, 161, 220–228. <https://doi.org/10.1016/j.neucom.2015.02.039>
- Joshi, M. L., & Kanoongo, N. (2022). Depression detection using emotional artificial intelligence and machine learning: A closer review. *Materials Today: Proceedings*, 58, 217–226. <https://doi.org/10.1016/j.matpr.2022.01.467>
- Lee, E. E., Torous, J., De Choudhury, M., Depp, C. A., Graham, S. A., Kim, H.-C., Paulus, M. P., Krystal, J. H., & Jeste, D. V. (2021). Artificial Intelligence for Mental Health Care: Clinical Applications, Barriers, Facilitators, and Artificial Wisdom. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 6(9), 856–864. <https://doi.org/10.1016/j.bpsc.2021.02.001>
- Lim, S. M., Shiao, C. W. C., Cheng, L. J., & Lau, Y. (2022). Chatbot-Delivered Psychotherapy for Adults With Depressive and Anxiety Symptoms: A Systematic Review and Meta-Regression. *Behavior Therapy*, 53(2), 334–347. <https://doi.org/10.1016/j.beth.2021.09.007>
- Luxton, D. D., Anderson, S. L., & Anderson, M. (2016). Ethical Issues and Artificial Intelligence Technologies in Behavioral and Mental Health Care. In *Artificial Intelligence in Behavioral and Mental Health Care* (pp. 255–276). Elsevier. <https://doi.org/10.1016/B978-0-12-420248-1.00011-8>
- Luxton, D. D., June, J. D., Sano, A., & Bickmore, T. (2016). Intelligent Mobile, Wearable, and Ambient Technologies for Behavioral Health Care. In *Artificial Intelligence in Behavioral and Mental Health Care* (pp. 137–162). Elsevier. <https://doi.org/10.1016/B978-0-12-420248-1.00006-4>
- Mani Sekhar, S. R., Raj, S., & Siddesh, G. M. (2022). Wearable technology and artificial intelligence in psychiatric disorders. In *Wearable Telemedicine Technology for the Healthcare Industry* (pp. 53–70). Elsevier. <https://doi.org/10.1016/B978-0-323-85854-0.00004-6>
- Rezayi, S. (2022). Controlling vital signs of patients in emergencies by wearable smart sensors. In *Wearable Telemedicine Technology for the Healthcare Industry* (pp. 71–86). Elsevier. <https://doi.org/10.1016/B978-0-323-85854-0.00011-3>

- Riek, L. D. (2016). Robotics Technology in Mental Health Care. In *Artificial Intelligence in Behavioral and Mental Health Care* (pp. 185–203). Elsevier. <https://doi.org/10.1016/B978-0-12-420248-1.00008-8>
- Rizzo, A., Shilling, R., Forbell, E., Scherer, S., Gratch, J., & Morency, L.-P. (2016). Autonomous Virtual Human Agents for Healthcare Information Support and Clinical Interviewing. In *Artificial Intelligence in Behavioral and Mental Health Care* (pp. 53–79). Elsevier. <https://doi.org/10.1016/B978-0-12-420248-1.00003-9>
- Rosenfeld, A., Benrimoh, D., Armstrong, C., Mirchi, N., Langlois-Therrien, T., Rollins, C., Tanguay-Sela, M., Mehlretter, J., Fratila, R., Israel, S., Snook, E., Perlman, K., Kleinerman, A., Saab, B., Thoburn, M., Gabbay, C., & Yaniv-Rosenfeld, A. (2021). Big Data analytics and artificial intelligence in mental healthcare. In *Applications of Big Data in Healthcare* (pp. 137–171). Elsevier. <https://doi.org/10.1016/B978-0-12-820203-6.00001-1>
- Saheb, T., Saheb, T., & Carpenter, D. O. (2021). Mapping research strands of ethics of artificial intelligence in healthcare: A bibliometric and content analysis. *Computers in Biology and Medicine*, 135, 104660. <https://doi.org/10.1016/j.compbiomed.2021.104660>
- Schepman, A., & Rodway, P. (2020). Initial validation of the general attitudes towards Artificial Intelligence Scale. *Computers in Human Behavior Reports*, 1, 100014. <https://doi.org/10.1016/j.chbr.2020.100014>
- Siala, H., & Wang, Y. (2022b). SHIFTing artificial intelligence to be responsible in healthcare: A systematic review. *Social Science & Medicine*, 296, 114782. <https://doi.org/10.1016/j.socscimed.2022.114782>
- Song, Q., Huang, T., Wang, X., Niu, J., Zhao, W., Xu, H., & Lu, L. (2021). Chapter 15—Application of big data and artificial intelligence approaches in diagnosis and treatment of neuropsychiatric diseases. In A. A. Moustafa (Ed.), *Big Data in Psychiatry & Neurology* (pp. 305–323). Academic Press. <https://doi.org/10.1016/B978-0-12-822884-5.00005-2>
- Zhang, X., Wang, R., Sharma, A., & Deverajan, G. G. (2021). Artificial intelligence in cognitive psychology—Influence of literature based on artificial intelligence on children’s mental disorders. *Aggression and Violent Behavior*, 101590. <https://doi.org/10.1016/j.avb.2021.101590>

CHAPTER 16

Transformative Pedagogy in Higher Education: Empowering Learners for the Future

Amna Saleem¹, Syed Faraz Ali² & Aqeel Khan²

¹Department of Teacher Education, International Islamic University Islamabad, Pakistan

²Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor, Malaysia

Abstract: This chapter explores the concept of transformative pedagogy in higher education, which seeks to facilitate deep, holistic learning and transformation of students' thinking, beliefs, values, and practices. The chapter begins by discussing its background, concept and features of transformative pedagogy. After that the principles of transformative pedagogy, including critical reflection, empowerment, dialogue and collaboration, and social justice are explained. It then describes various practices that support transformative learning, such as experiential learning, student-centered learning, multimodal learning, and community. The chapter also addresses the challenges of implementing transformative pedagogy, such as resistance to change, lack of institutional support, and assessment and evaluation. At the end of chapter, significance transformative pedagogy at higher education is explored. Ultimately, the chapter argues that transformative pedagogy is a valuable and necessary approach to education that can help students thrive in an increasingly complex and interconnected world.

Keywords: *Transformative Pedagogy, Critical Thinking, Experimental Learning*

1.1. INTRODUCTION

Higher education is constantly evolving to meet the demands of the 21st century, where rapid advancements in technology, globalization, and changing societal needs are reshaping the landscape of work and life. As such, higher education institutions are challenged to prepare learners not only with knowledge and skills, but also with the ability to adapt, innovate, and thrive in an ever-changing world. In this context, transformative pedagogy has emerged as a critical concept that focuses on empowering learners to become active, engaged, and reflective participants in their own learning journey, leading to deep and meaningful learning experiences that foster personal growth and societal change (Hoggan & Kloubert, 2020).

Transformative pedagogy is a learner-centered approach to teaching and learning that goes beyond traditional instructional methods, aiming to empower learners to become active agents in their own learning process. It challenges traditional power dynamics in the classroom, encourages critical reflection, and promotes the construction of knowledge and meaning by learners themselves (Cranton, 2006).

At the heart of transformative pedagogy is the idea of transformative learning, which was originally proposed by Jack Mezirow, a prominent adult education scholar. According to Mezirow, transformative learning is a process through which learners critically reflect on their own beliefs, assumptions, and experiences, and subsequently undergo a deep cognitive,

emotional, and psychological shift in their understanding of themselves and the world around them (Mezirow, 2003). This shift leads to new perspectives, insights, and ways of being, and ultimately empowers learners to take action and create positive change in their lives and communities.

Transformative pedagogy is rooted in critical pedagogy, a framework developed by Brazilian educator Paulo Freire, who argued that traditional education often reinforces oppressive power dynamics and perpetuates social inequalities. Freire emphasized the need for educators to engage learners in critical reflection and dialogue, and to empower them to become active participants in the process of knowledge construction, rather than passive recipients of information (Freire, 2000). Transformative pedagogy builds on these ideas by placing learners at the center of the learning process and emphasizing their agency, autonomy, and ownership in constructing knowledge and meaning (King, 2009).

Transformative pedagogy also highlights the importance of creating inclusive and participatory learning environments that foster dialogue, collaboration, and critical thinking. Educators play a crucial role in facilitating transformative learning experiences by creating opportunities for learners to engage in meaningful reflection, questioning, and exploration of diverse perspectives. Through activities such as problem-solving, inquiry-based learning, case studies, and discussions, learners are encouraged to critically examine their assumptions, challenge their beliefs, and construct their own understanding of complex issues (Brookfield, 2017).

Furthermore, transformative pedagogy recognizes the importance of context in learning. It acknowledges that learners come from diverse backgrounds, cultures, and experiences, and that their unique identities and contexts shape their learning process. Educators need to be aware of learners' diverse backgrounds and create inclusive learning environments that validate and honor their identities and perspectives, while also challenging them to critically reflect on their assumptions and biases (Boud et al., 2013).

In summary, transformative pedagogy in higher education is an approach that empowers learners to become active, engaged, and reflective participants in their own learning process. It challenges traditional power dynamics, encourages critical reflection, and fosters deep and meaningful learning experiences that promote personal growth and societal change. By promoting agency, autonomy, and ownership in learners, transformative pedagogy prepares them for the complexities of the 21st century, equipping them with the skills and mindset needed to navigate a rapidly changing world.

1.2. BACKGROUND OF TRANSFORMATIVE PEDAGOGY

Transformative pedagogy is an approach to education that aims to promote social justice and equity by empowering students to critically analyze and challenge the social, political, and economic systems that perpetuate oppression and inequality. This educational approach is rooted in the principles of critical pedagogy and draws on the works of influential scholars such as Paulo Freire, Bell Hooks, and Henry Giroux.

The roots of transformative pedagogy can be traced back to the works of Paulo Freire, a Brazilian educator and philosopher who is widely regarded as the father of critical pedagogy. In his seminal book "Pedagogy of the Oppressed" (1970), Freire argued that traditional education perpetuates social inequality by treating students as passive recipients of knowledge and failing to address the root causes of social injustice. He proposed an alternative approach to education that involves a dialogue between teachers and students, in which students are encouraged to critically analyze and challenge the dominant social order.

Building on Freire's work, bell hooks, an American feminist scholar, developed the concept of "engaged pedagogy" in her 1994 book "Teaching to Transgress." Hooks argued that education should be a liberatory practice that empowers students to challenge the dominant power structures and create more just and equitable communities. She emphasised the importance of creating a classroom environment that values and respects the experiences and perspectives of all students, particularly those who are marginalised.

Henry Giroux, an American critical theorist, further developed the concept of transformative pedagogy in his 2011 book "On Critical Pedagogy." Giroux argued that education is a political act that should aim to create critical thinkers and engaged citizens who are capable of challenging the dominant power structures and advocating for social justice. He emphasized the importance of teaching students to critically analyze the social, political, and economic systems that perpetuate oppression and inequality and to develop the skills and knowledge necessary to effect positive social change.

Transformative pedagogy has been applied in a variety of educational settings, including K–12 schools, colleges and universities, and community organizations. In recent years, there has been growing interest in transformative pedagogy among educators and scholars, particularly in the context of social movements such as Black Lives Matter, etc.

1.3. TRANSFORMATIVE PEDAGOGY: CONCEPTUALIZATION

Transformative pedagogy is a teaching approach that seeks to facilitate deep, holistic learning and the transformation of students' thinking, beliefs, values, and practices. It goes beyond the traditional focus on knowledge transmission and prioritizes the development of the whole learner. Transformative pedagogy aims to empower students to become active agents of their own learning and to use their learning to create positive change in their lives and in the world around them (Fujino et al., 2018).

Transformative pedagogy is based on four main ideas: critical reflection, student empowerment, dialogue and collaboration, and social justice. Critical reflection involves questioning assumptions, challenging beliefs, and examining experiences. Empowerment refers to providing students with the tools, resources, and opportunities to take charge of their own learning. Dialogue and collaboration foster a sense of community and cooperation among learners. Social justice recognizes the importance of equity and inclusion in education and society (Pavlou, V. (2020).

Transformative pedagogy can be put into practice in various ways. Experiential learning activities, such as service learning and internships, provide students with opportunities to apply their knowledge and skills in real-world settings and reflect on their experiences. Student-centered learning involves giving students more control over the learning process, such as by allowing them to choose their own topics and design their own projects. Multimodal learning incorporates multiple modes of learning, such as visual, auditory, and kinesthetic. Community engagement emphasizes the importance of engaging with local organizations, participating in community events, and engaging in social activism (Anwaruddin, 2018).

Transformative pedagogy is a valuable and necessary approach to education because it helps students develop the skills, knowledge, and values they need to thrive in an increasingly complex and interconnected world. By prioritizing critical reflection, empowerment, collaboration, and social justice, transformative pedagogy encourages students to become active, engaged learners who are committed to creating positive change in their communities and beyond (Nielsen, 2019).

Transformative pedagogy is a way of teaching and learning that gives students the tools they need to be change agents in their communities and in society as a whole. This approach is

rooted in critical theory, which emphasizes the importance of questioning dominant social norms and structures and working towards social justice and equity (Herbert et al., 2018).

Transformative pedagogy aims to create a classroom environment that is inclusive, respectful, and empowering for all students. It encourages educators to incorporate the perspectives and experiences of marginalized groups into the curriculum and to create opportunities for students to take action on social issues, engage in advocacy and activism, and use their knowledge and skills to make a positive difference in the world (Gal & Gan, 2020).

Transformative pedagogy also emphasizes the importance of reflection, both on the part of educators and students. Educators are encouraged to reflect on their own biases and assumptions and to continually question their own practices in order to improve and adapt to the needs of their students. Similarly, students are encouraged to reflect on their own experiences and assumptions and to critically evaluate their own beliefs and values (Hoggan & Kloubert, 2020).

Transformative pedagogy also values experiential learning, which involves incorporating real-world issues and problems into the curriculum and allowing students to see the relevance and applicability of what they are learning to their own lives and communities. This approach encourages educators to incorporate case studies, community-based projects, and other experiential learning activities (Anwaruddin, 2018).

Features of Transformative Pedagogy

Transformative pedagogy is an approach to teaching and learning that emphasizes critical reflection, empowerment, and social justice. Here are some of the key features of transformative pedagogy:

Critical consciousness:

Transformative pedagogy encourages students to develop critical consciousness, which involves becoming aware of the social, political, and economic forces that shape their lives and the world around them. Critical consciousness enables students to analyze and question their own experiences and perspectives, as well as those of others, in order to better understand the world and to work towards positive social change (Freire, 1970).

Empowerment:

Transformative pedagogy seeks to empower students by providing them with the knowledge, skills, and tools they need to take control of their own learning and to become agents of change in their communities. This involves creating a classroom environment that is supportive, collaborative, and student-centered, and that encourages active engagement and participation (Giroux, 2003).

Social justice:

Transformative pedagogy is grounded in a commitment to social justice, which involves working towards greater equality, inclusion, and respect for diversity. This requires addressing issues of power and privilege, and creating a classroom culture that values and respects the experiences and perspectives of all students (Hooks, 2014).

Dialogue and reflection: Transformative pedagogy emphasizes the importance of dialogue and reflection as key components of the learning process. This involves creating opportunities for students to engage in meaningful and respectful conversations with their peers and with the teacher, and to reflect on their own learning and growth (Mezirow, 1991).

Praxis: Transformative pedagogy involves the integration of theory and practice, or praxis. This means that students are encouraged to apply what they are learning to real-world situations and to engage in action-oriented projects that promote positive social change (Freire, 1970).

1.4. PRINCIPLES OF TRANSFORMATIVE PEDAGOGY

Transformative pedagogy is an approach to education that seeks to empower students to think critically about social issues and become agents of change in their communities. The principles of transformative pedagogy provide a framework for educators to create a learning environment that promotes critical thinking, reflection, and dialogue. Here are some of the key principles of transformative pedagogy:

Social justice: The principle of social justice is central to transformative pedagogy. Educators must work to promote social justice by challenging the dominant societal norms that perpetuate inequality and discrimination. This requires educators to address issues of power, privilege, and oppression, and to incorporate the perspectives and experiences of marginalized groups into the curriculum (Giroux, 2020).

Empowerment: Transformative pedagogy seeks to empower students to become agents of change in their communities. This requires educators to create opportunities for students to take action on social issues, to engage in advocacy and activism, and to use their knowledge and skills to make a positive difference in the world (Freire, 1970).

Critical thinking: Critical thinking is a fundamental principle of transformative pedagogy. Educators must encourage students to think critically about social issues and to consider multiple perspectives. This requires educators to ask open-ended questions, encourage students to express their own ideas, and facilitate discussions that are respectful, productive, and inclusive (Mezirow, 1991).

Reflection: Reflective practices are essential to transformative pedagogy. Educators must encourage students to reflect on their own experiences and assumptions, and to critically evaluate their own beliefs and values. This requires educators to create opportunities for students to reflect on their learning, to journal, and to engage in other reflective activities (Hooks, 2014).

Dialogue: Dialogue is a key principle of transformative pedagogy. Educators must facilitate discussions that challenge students to think critically about social issues and to consider multiple perspectives. This requires educators to create a safe and respectful learning environment in which students feel comfortable expressing their thoughts and ideas (Hooks, 2014).

Community: The principle of community is essential to transformative pedagogy. Educators must create a classroom culture that values diversity, encourages open dialogue, and fosters a sense of community among students. This requires educators to create opportunities for students to work collaboratively, to learn from each other, and to build relationships (Hoggan & Kloubert, 2020).

Experiential learning: Experiential learning is an important principle of transformative pedagogy. Educators must incorporate real-world issues and problems into the curriculum, allowing students to see the relevance and applicability of what they are learning to their own lives and communities. This can be done through case studies, community-based projects, and other experiential learning activities (Kolb, 1984).

1.5. PRACTICES OF TRANSFORMATIVE PEDAGOGY

Transformative pedagogy, also known as critical pedagogy, is an approach to education that seeks to empower students to think critically about social issues and become agents of change in their communities. The practices of transformative pedagogy include a range of strategies and techniques that promote critical thinking, reflection, and dialogue. Here are some of the key practices of transformative pedagogy:

Creating a safe and respectful learning environment:

Transformative pedagogy begins with the creation of a safe and respectful learning environment in which students feel comfortable expressing their thoughts and ideas. This requires teachers to create a classroom culture that values diversity, encourages open dialogue, and fosters a sense of community among students (Colomer et al., 2020).

Engaging in critical dialogue:

Critical dialogue is at the heart of transformative pedagogy. Teachers must facilitate discussions that challenge students to think critically about social issues and to consider multiple perspectives. This requires teachers to ask open-ended questions, encourage students to express their own ideas, and facilitate discussions that are respectful, productive, and inclusive (Harrell-Levy & Kerpelman, 2010).

Incorporating real-world issues:

Transformative pedagogy emphasizes the integration of real-world issues and problems into the curriculum. This allows students to see the relevance and applicability of what they are learning to their own lives and communities. Teachers can incorporate real-world issues by using case studies, community-based projects, and other experiential learning activities (Gray et al., 2019).

Encouraging reflection:

Reflective practices are essential to transformative pedagogy. Teachers must encourage students to reflect on their own experiences and assumptions, and to critically evaluate their own beliefs and values. This requires teachers to create opportunities for students to reflect on their learning, to journal, and to engage in other reflective activities (Lopez & Olan, 2018).

Promoting social justice and equity: Transformative pedagogy emphasizes the promotion of social justice and equity in education. Teachers must challenge the dominant societal norms that perpetuate inequality and discrimination, and they must work to create a more just and equitable society. This requires teachers to address issues of power, privilege, and oppression, and to incorporate the perspectives and experiences of marginalized groups into the curriculum (Lynch & Curtner-Smith, 2019).

Empowering students: Finally, transformative pedagogy seeks to empower students to become agents of change in their communities. Teachers must encourage students to take action on social issues, to engage in advocacy and activism, and to use their knowledge and skills to make a positive difference in the world (Van Schalkwyk et al., 2019).

1.6. CHALLENGES OF TRANSFORMATIVE PEDAGOGY

Despite its many benefits, transformative pedagogy can be challenging to implement. Some of the challenges include:

Resistance to change: One of the primary challenges of transformative pedagogy is that it challenges the status quo of traditional education. This can be difficult for some students, parents, and educators who are used to more passive, lecture-based learning. Transformative pedagogy asks students to actively engage with the material and each other, often through activities like group work, discussions, and project-based learning. This can be a major shift for students who are used to being passive recipients of information, and for parents and educators who may be more comfortable with a more structured, teacher-centered approach to learning (Schmidt & Tang, 2020).

Time constraints: Transformative pedagogy requires a significant investment of time and resources to develop and implement. Teachers must be trained in the principles and practices of transformative pedagogy, which can take time and money. Additionally, the curriculum must be designed to incorporate issues of social justice and equity, which can be challenging in schools that are already strapped for time due to standardized testing and other demands (Hoggan & Kloubert, 2020).

Lack of support: Transformative pedagogy may not be supported by school administrators or policymakers who prioritize other educational goals over social justice and equity. Teachers may find it difficult to implement transformative pedagogy in their classrooms if they don't have support from their administrators or if they are not given the time, resources, and training they need to implement this approach effectively (Schmidt & Tang, 2020).

Inadequate teacher preparation: Many teachers may not have been exposed to the principles and practices of transformative pedagogy during their teacher education programs, or they may not have had the opportunity to engage in critical dialogue with their peers and mentors. This can make it challenging for teachers to feel confident and competent in implementing transformative pedagogy in their classrooms (Lopez & Olan, 2018).

Classroom management: Transformative pedagogy asks students to engage in critical dialogue and reflection, which can sometimes lead to conflict and tension in the classroom. Teachers must be skilled at managing these situations and creating a safe and respectful learning environment for all students. This requires strong classroom management skills and the ability to facilitate dialogue in a way that is productive and respectful (Van Schalkwyk et al., 2019).

Assessment: Transformative pedagogy challenges traditional assessment methods, which may not capture the complex learning that occurs through critical dialogue and reflection. Teachers must develop alternative assessment methods that allow students to demonstrate their learning and growth in ways that are meaningful and relevant to their lives. This can be challenging, as it may require teachers to develop new assessment tools or use existing tools in new and creative ways (Montgomery & Fernández-Cárdenas, 2018).

1.7. SIGNIFICANCE OF TRANSFORMATIVE PEDAGOGY AT HIGHER EDUCATION

Transformative pedagogy is significant because it provides a framework for educators to empower students to become agents of change in their communities. Transformative pedagogy has an important role to play in higher education, where it can empower students to become agents of change in their communities and prepare them for careers that contribute to social justice and equity. Here are some of the key roles that transformative pedagogy can play in higher education:

- Transformative pedagogy seeks to promote social justice by challenging the dominant societal norms that perpetuate inequality and discrimination. This approach encourages educators to incorporate the perspectives and experiences of marginalized groups into the curriculum, and to work towards creating a more just and equitable society (Yacek, 2020).
- Transformative pedagogy empowers students to become agents of change in their communities. This approach encourages educators to create opportunities for students to take action on social issues, to engage in advocacy and activism, and to use their knowledge and skills to make a positive difference in the world (Yacek & Gary, 2020).
- Transformative pedagogy fosters critical thinking by encouraging students to think critically about social issues and to consider multiple perspectives. This approach encourages educators to ask open-ended questions, encourage students to express their own ideas, and facilitate discussions that are respectful, productive, and inclusive (Hoggan & Kloubert, 2020).
- Encouraging reflection: Transformative pedagogy encourages reflection by encouraging students to reflect on their own experiences and assumptions, and to critically evaluate their own beliefs and values. This approach encourages educators to create opportunities for students to reflect on their learning, to journal, and to engage in other reflective activities (Lynch & Curtner-Smith, 2019).
- Transformative pedagogy builds community by creating a classroom culture that values diversity, encourages open dialogue, and fosters a sense of community among students. This approach encourages educators to create opportunities for students to work collaboratively, to learn from each other, and to build relationships (Schmidt & Tang, 2020).
- Transformative pedagogy develops experiential learning by incorporating real-world issues and problems into the curriculum, allowing students to see the relevance and

applicability of what they are learning to their own lives and communities. This approach encourages educators to incorporate case studies, community-based projects, and other experiential learning activities (Colomer et al., 2020).

- Transformative pedagogy can prepare students for careers that contribute to social justice and equity. By incorporating real-world issues and problems into the curriculum, and by encouraging students to take action on social issues, educators can help students develop the skills and knowledge they need to make a positive difference in the world (Wright & Osman, 2018).

1.8. CONCLUSION

Transformative pedagogy is an approach to teaching and learning that seeks to empower students to become critical thinkers, engaged citizens, and agents of change in their communities. It emphasizes the promotion of social justice, empowerment, critical thinking, reflection, dialogue, community, and experiential learning. The principles of transformative pedagogy emphasize the promotion of social justice, empowerment, critical thinking, reflection, dialogue, community, and experiential learning. The practices of transformative pedagogy emphasize the creation of a safe and respectful learning environment, critical dialogue, the integration of real-world issues, reflective practices, the promotion of social justice and equity, and the empowerment of students. The challenges of transformative pedagogy include resistance to change, time constraints, lack of support, inadequate teacher preparation, classroom management, and assessment. However, with the right support, training, and resources, teachers can overcome these challenges and create a more just and equitable learning environment for their students. It is concluded that transformative pedagogy represents a powerful approach to higher education that seeks to transform learners at a deep, holistic level. By prioritizing critical reflection, empowerment, collaboration, and social justice, transformative pedagogy can help students develop the skills, knowledge, and values they need to thrive in an increasingly complex and interconnected world. Despite the challenges, transformative pedagogy is a valuable and necessary approach to education that deserves further exploration and implementation.

REFERENCES

- Anwaruddin, S. M. (2018). Translanguaging as transformative pedagogy: Towards a vision of democratic education. *Revista Brasileira de Linguística Aplicada*, 18, 301-312.
- Boud, D., Keogh, R., & Walker, D. (2013). *Reflection: Turning Experience into Learning*. Routledge.
- Brookfield, S. D. (2017). *Becoming a Critically Reflective Teacher*. Jossey-Bass.
- Colomer, J., Serra, T., Cañabate, D., & Bubnys, R. (2020). Reflective learning in higher education: Active methodologies for transformative practices. *Sustainability*, 12(9), 3827.
- Cranton, P. (2006). *Understanding and Promoting Transformative Learning: A Guide for Educators of Adults*. Jossey-Bass.

- Freire, P. (1970). *Pedagogy of the oppressed* (MB Ramos, Trans.). New York: Continuum, 2007.
- Freire, P. (2000). *Pedagogy of the Oppressed: 30th Anniversary Edition*. Bloomsbury Publishing.
- Fujino, D. C., Gomez, J. D., Lezra, E., Lipsitz, G., Mitchell, J., & Fonseca, J. (2018). A transformative pedagogy for a decolonial world. *Review of Education, Pedagogy, and Cultural Studies*, 40(2), 69-95.
- Gal, A., & Gan, D. (2020). Transformative sustainability education in higher education: activating environmental understanding and active citizenship among professional studies learners. *Journal of transformative education*, 18(4), 271-292.
- Giroux, H. A. (2003). Public pedagogy and the politics of resistance: Notes on a critical theory of educational struggle. *Educational philosophy and theory*, 35(1), 5-16.
- Giroux, H. A. (2020). *On Critical Pedagogy*. Bloomsbury Academic.
- Gray, N., Ward, J., & Fogarty, J. (2019). Transformative learning through university and prison partnerships: Reflections from 'Learning Together' pedagogical practice. *Journal of Prison Education and Reentry*, 6(1), 7-24.
- Harrell-Levy, M. K., & Kerpelman, J. L. (2010). Identity process and transformative pedagogy: Teachers as agents of identity formation. *Identity: An international journal of theory and research*, 10(2), 76-91.
- Herbert, K. J., Baize-Ward, A., & Latz, A. O. (2018). Transformative pedagogy with innovative methodology: Using photovoice to understand community college students' needs. *Community College Journal of Research and Practice*, 42(7-8), 536-549.
- Hoggan, C., & Kloubert, T. (2020). Transformative learning in theory and practice. *Adult Education Quarterly*, 70(3), 295-307.
- Hooks, B. (2014). *Teaching to transgress*. Routledge.
- King, K. P. (2009). Reflective Judgment: Theory and Research on the Development of Epistemic Assumptions Through Adulthood. *Educational Psychologist*, 44(4), 247-258.
- Lopez, A. E., & Olan, E. L. (Eds.). (2018). *Transformative pedagogies for teacher education: Moving towards critical praxis in an era of change*. IAP.
- Lynch, S., & Curtner-Smith, M. (2019). 'You have to find your slant, your groove:' one physical education teacher's efforts to employ transformative pedagogy. *Physical Education and Sport Pedagogy*, 24(4), 359-372.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. Jossey-Bass, 350 Sansome Street, San Francisco, CA 94104-1310.
- Mezirow, J. (2003). *Transformative Learning as Discourse*. *Journal of Transformative Education*, 1(1), 58-63.

- Montgomery, C., & Fernández-Cárdenas, J. M. (2018). Teaching STEM education through dialogue and transformative learning: global significance and local interactions in Mexico and the UK. *Journal of Education for Teaching*, 44(1), 2-13.
- Nielsen, N. M. (2019). Problem-oriented project learning as a first year experience: A transformative pedagogy for entry level PPL. *Education Sciences*, 10(1), 6.
- Pavlou, V. (2020). Art technology integration: digital storytelling as a transformative pedagogy in primary education. *International Journal of Art & Design Education*, 39(1), 195-210.
- Schmidt, J. T., & Tang, M. (2020). Digitalization in education: challenges, trends and transformative potential. *Führen und Managen in der Digitalen Transformation: Trends, Best Practices und Herausforderungen*, 287-312.
- Van Schalkwyk, S. C., Hafler, J., Brewer, T. F., Maley, M. A., Margolis, C., McNamee, L., ... & Bellagio Global Health Education Initiative. (2019). Transformative learning as pedagogy for the health professions: a scoping review. *Medical education*, 53(6), 547-558.
- Wright, E., & Osman, R. (2018). What is critical for transforming higher education? The transformative potential of pedagogical framework of phenomenography and variation theory of learning for higher education. *Journal of Human Behavior in the social Environment*, 28(3), 257-270.
- Yacek, D. W. (2020). Should education be transformative?. *Journal of Moral Education*, 49(2), 257-274.
- Yacek, D. W., & Gary, K. (2020). Transformative experience and epiphany in education. *Theory and Research in Education*, 18(2), 217-237.

CHAPTER 17

Facilitating Student Transition to University in the Pandemic- Concerns and Solutions

Noora Abdul Kader¹

¹*Department of Education, Aligarh Muslim University, Aligarh, India*

Abstract: The transition of new cohort group of students to the higher education institutions needs to be given much care and consideration in this pandemic situation. The existing set pattern of the curriculum including teaching-learning process, framing of learning outcomes and evaluation need to be re-visited to support students. The present study is qualitative in design with two major objectives. One is to analyse the issues and concerns in detail while students are coming to the universities after a prolonged educational disruption and the second objective is to suggest certain possible solutions to tackle these issues and concerns in an effective way. Problems in academics on account of prolonged educational disruption, Problems related to sense of belongingness, Concerns related to mental health, Lack of attaining hidden curriculum and Lack of adequate pre-university support were the major issues discussed in the paper. A few solutions are also suggested in the article with special reference to providing university space, orientation programme, counselling services, co-curricular activities in collaboration with university services and peer to peer interaction. The concerns and solutions suggested by the researcher will definitely help all the stake holders of education to provide a better support to the students in their transition.

Key words: *Student Transition, University, Pandemic*

1.1. INTRODUCTION

The Covid19 pandemic created a long-lasting disturbance in the field of education globally. Students who are getting enrolled in the higher education system lost their preparatory phase of higher secondary education during this pandemic. They need support and consideration in this regard. This pandemic of 2019 made sustained disruptive impact on all levels of education. (Aristovnik et al., 2020; Crawford et al., 2020; UNESCO, 2020). Many suggestions and recommendations came from around the globe from different experts regarding the best practices that teachers must use during this shift from offline to online teaching. (Bao, 2020; Nordmann et al., 2020; Sandars et al., 2020). The transition from school education to higher education should be smooth and for that, it needs a well-organized supporting system during this turbulent climate. In the new session, universities have to interact with those students who faced many sort of disruptions in their school education, deprived of exams and a lack of pre-university support (Eyles et al., 2020). These group of newly admitted students need extra support during their transition to university.

Apart from formal system of school education, these students also lost their chance to get involved in co-curricular and extra-curricular activities. They also got lesser opportunities to learn concepts and skills with utmost clarity and understanding. Formal examination system and hidden curriculum have also been taken away from students which will adversely affect their smooth transition. The readiness of these students may not be as expected. It may take time for them to get adjusted with the new normal and this fact should be taken into

consideration while framing the objectives and outcomes of the curriculum and by the teachers during the teaching learning process (Pownall et al., 2021). Hidden curriculum means, certain rules and regulations of the university in relation to society, culture, educational and institutional norms, which could not be found in written form anywhere. But it is still practiced and transferred from one batch to another (Pownall et al., 2021). This curriculum is attained by students during their meetings, interaction with peers and through various programmes like seminars, symposium and workshops.

1.2. NEED AND SIGNIFICANCE OF THE STUDY

Students resuming themselves to the Universities after a long time of disruption of classes need to be given proper attention. The already existing expectations, which we usually do from all the newly enrolled students, cannot be expected from these students. Not only the freshers, students who resume their classes also should be given due consideration. It is a new normal situation for all the teachers and teacher educators. We don't have a set criterion to handle the issues and concerns of these students. Many of the problems of these students may not be explicitly revealed. It needs much enthusiasm and well-defined strategies to look into the problems of students. The problem can be kept in two angles, some students may feel themselves alien in the university and find it difficult to adjust with the existing situation as they have not gone through the preparatory phase of university by missing their higher secondary offline education. A few students may find it a platform to expose their maximum potential as soon as they reach universities. This may adversely affect when they move towards unrest and consider every opportunity for extroversion. The present study is analysing these problems and issues in a broad perspective and this will help teachers to change their mindset from the already defined curriculum transactions and avail new strategies to handle these students.

1.3. REVIEW OF RELATED LITERATURE

Murgatroid (2020) conducted a study to identify the challenges faced by students during e-learning with reference to the flexibility, accessibility and also affordability. The result of the study found that, different countries have different infrastructure in giving proper access to e-learning to students depending on their financial stability. The problem is severe in the developing countries, where economically backward children could not afford online learning devices.

Sintema (2020) conducted a study to identify the level of academic achievement of students due to online classes in different subjects. According to the researcher, the lack of face-to-face contact between the teacher and students creates disturbance in the comprehension of concepts.

Ravichandran & Shah (2020) found that during the pandemic period, many cases of domestic violence and child abuse have been reported and it is on the rise. Most of the cases showed that the perpetrators are either from the family or from the neighbourhood.

1.4. OBJECTIVES OF THE STUDY

- (1) To identify the possible challenges faced by students in their transition to university during Covid19.

- (2) To explore plausible solutions and suggestions to tackle the challenges faced by students in their transition to university during Covid19

1.5. RESULTS AND DISCUSSION

To identify the possible challenges faced by students in their transition to university during Covid19.

1.5.1. Problems in academics on account of prolonged educational disruption

Every university is having certain expectations regarding students who are newly admitted. We are expecting great enthusiasm from students as soon as they join the university or colleges. Such attitudes and interests in allied activities from students may be deprived when they there is a transition to university after a long gap in formal system of education. Students may find it struggling to adapt to the academic expectations of university after a prolonged educational disruption. It will not be easy for those students to grasp the curricular structure at university level. (McPhail, 2015; Scutter et al., 2011; Smith & Wertlieb, 2005).

1.5.2. Problems related to sense of belongingness

Imposter syndrome is referred to as an experience or belief of an individual that they are not competent enough like others and cannot perform like others do. It is a state when we cannot take or earn our position. Students who are new in the university may find it challenging to adjust themselves in the new culture and will struggle to equip themselves with the new normal situation of the campus. Sense of belonging is important for better acculturation and academic achievement. The challenge to adjust and develop a sense of belonging is heightened by Covid19 on account of unique situational issues like financial crisis, loss of beloved ones or mental trauma. Many research findings indicate that due to this lack of university space in the pandemic context, students lost their sense of discipline, belonging and well-being. Interaction with other students could only develop the sense of belonging and self-esteem (Harris et al., 2021).

1.5.3. Concerns related to mental health

The Covid19 pandemic has created and exacerbated the concerns related to mental health consequences. It was an alarming situation to take care of the mental health and mental hygiene of students seriously and universities have provided adequate mental health support system for students (e.g., Baik et al., 2019; Wynaden et al., 2014). Students have reported depression and anxiety after this long gap of lack of social interaction. Financial crisis in many families during the lockdown has affected mental health of many students. In a study conducted by Cao et al. (2020) in China, it was found that 25% of students were depicting symptoms of anxiety related to financial impact of COVID-19 at home. Lockdowns have prompted a widespread lack of exercise, which negatively impacts their mental health.

1.5.4. Lack of attaining hidden curriculum

Every university is having surface curriculum which is very much explicit. All stake holders of education are trying hard to achieve the surface curriculum through well-defined objectives and outcomes. Apart from the surface curriculum, there is also a hidden curriculum

which refers broadly to the societal, educational, or institutional values or norms that are transmitted unconsciously to students. These values, norms and traditions are not explicitly taught to students. It is being transmitted through interaction between the senior students, teachers and peer groups. Students who do not got the experience of senior secondary school, may act in an immature way which may not be acceptable according to the existing traditions and culture of the institutions. Imposing those values forcefully on students will not make things better.

1.5.5. Lack of adequate pre-university support

A few changes are very much vivid among students when they enter into their higher secondary school stage in their dressing style, their body language and mode of communication. They develop many qualities like leadership, interaction and discipline. Identity crisis will be severe among those students who are struggling in the shift to the university from school education as they didn't receive enough pre-university support. The kind of training that they might have received if there is no such situation of pandemic, is completely deprived for them. This may create a gap between students who are trained for universities and those who are deprived of such kind of support system. Certain other factors which may affect the successful transition to university education are gender, age, and socioeconomic status (Rummey et al, 2019).

To explore plausible solutions and suggestions to tackle the challenges faced by students in their transition to university during Covid19

1.5.6. Possible solutions

- Extra care should be given to students in grasping the content material so that they could reacclimatize to academics.
- The mindset of the students may not be ready or equipped to learn as they are used to in the pre covid19 circumstances. This should be taken into consideration while preparing the content material, setting learning objectives and learning outcomes and also in the process of evaluation.
- Enough setting and space should be given to learners to actively participate in their transition experience.
- Opportunities should be given to students to develop a support network of friends at university. This will definitely help to increase confidence and security. Apart from sitting together in the class, students should be given opportunities to collaborate and interact each other to build their own self-image, which can also negate imposter syndrome.
- Students coming to the university after going through turmoil of the pandemic, may have different issues and concerns. They may show different adjustment problems. It is the responsibility of teachers to respond sensitively and proactively to combatting students' fragile sense of belonging.
- Opportunities should be given to facilitate peer-to-peer support. It will help to identify and imbibe hidden curriculum including values, traditions and cultures.
- Students may feel relaxed while getting engaged themselves with university clubs and societies.

- Though it is a time-consuming task, it would help a lot to resolve the mental health concerns of students through a reappraisal of the curriculum. It should also be pondered on how structure of the module can be adjusted and re-organized according to the accessibility and mental health of the students.
- Counselling cell of every department should be active so that students may approach the counsellor at any time. This would help the students to recover from the long-lasting mental health effects of COVID-19.
- Educators may encourage peer-to-peer working, motivate staff-student relationships which will help in developing a respectful and collaborative learning environment and culture. Students in this environment will feel free to access the surface and hidden curriculum from teachers.
- The type of teaching-learning process should be student-centred, proactive, timely, and tailored.
- Students should be given the chance and space to get access to university support systems including guidance and counselling cell, women cell, placement cell and students' welfare committee to develop their study skills
- A well organized induction or orientation programme should be arranged in the beginning of the session which will help students to get oriented towards the history, facilities and aspiring visions of the university.

1.6. CONCLUSION

The problems raised in this article is very much relevant to the present scenario. Issues should not be taken lightly, but should be given serious concern. Students and their all-round development must be the top most preference of any higher education institution. The possible solutions suggested in the article will be a leading light for teachers and teacher educators to help students to invade various issues and concerns in relation to transition to university after a prolonged educational disruption.

REFERENCES

- Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, 12(20), 8438. <https://doi.org/10.3390/su12208438>
- Baik, C., Larcombe, W., Brooker, A. (2019). How universities can enhance student mental wellbeing: The student perspective. *Higher Education Research & Development*, 38(4), 674–687. <https://doi.org/10.1080/07294360.2019.1576596>
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113–115. <https://doi.org/10.1002/hbe2.191>
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, 112934. <https://doi.org/10.1016/j.psychres.2020.112934>
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P. A., & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital

- pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1–20. <https://doi.org/10.37074/jalt.2020.3.1.7>
- Eyles, A., Gibbons, S., Montebruno, P. (2020). COVID-19 school shutdowns: What will they do to our children’s education? CEP COVID-19 analysis (001). *London School of Economics and Political Science*.
- Harris, R., Pownall, M., Blundell-Birtill, P. (2021). “A more personal way to learn during such an isolating time”: The value of live lectures in online teaching. *Student Success*.
- Murgatroid, S. (2020, March). COVID-19 and Online learning, Alberta, Canada. doi:10.13140/RG.2.2.31132.8512.
- Nordmann, E., Horlin, C., Hutchison, J., Murray, J.-A., Robson, L., Seery, M. K. (2020). Ten simple rules for supporting a temporary online pivot in higher education. *PLoS Computational Biology*, 16(10), e1008242. <https://doi.org/10.1371/journal.pcbi.1008242>
- Ravichandran, P., Shah, A. K. (2020 July). Shadow pandemic: Domestic violence and child abuse during the COVID-19 lockdown in India. *International Journal of Research in Medical Sciences*, 08(08), 3118. <https://doi.org/10.18203/2320-6012.ijrms20203477>
- Rummey, C., Clemons, T. D., Spagnoli, D. (2019). The impact of several demographic factors on chemistry laboratory anxiety and self-efficacy in students’ first year of university. *Student Success*, 10(1), 87–99. <https://doi.org/10.5204/ssj.v10i1.1104>
- Sandars, J., Correia, R., Dankbaar, M., de Jong, P., Goh, P. S., Hege, I., ... & Pusic, M. (2020). Twelve tips for rapidly migrating to online learning during the COVID-19 pandemic. *MedEdPublish*, 9(1):82. <https://doi.org/10.15694/mep.2020.000082.1>
- Scutter, S., Palmer, E., Luzecky, A., Burke Da Silva, K. L., Brinkworth, R. (2011). What do commencing undergraduate students expect from first year university? *International Journal of the First Year in Higher Education*, 2(1), 8–20. <https://doi.org/10.5204/intjfyhe.v2i1.54>
- Sintema, E. J. (2020 April 7). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(7). <https://doi.org/10.29333/ejmste/7893>
- Smith, J. S., Wertlieb, E. C. (2005). Do first-year college students’ expectations align with their first-year experiences. *Journal of Student Affairs Research and Practice*, 42(2), 299–320. <https://doi.org/10.2202/1949-6605.1470>
- Wynaden, D., McAllister, M., Tohotoa, J., Al Omari, O., Heslop, K., Duggan, R., & Byrne, L. (2014). The silence of mental health issues within university environments: A quantitative study. *Archives Of Psychiatric Nursing*, 28(5), 339–344. <https://doi.org/10.1016/j.apnu.2014.08.003>

CHAPTER 18

Resilience and Post Traumatic Growth among Covid-19 Exposed Adults Residing in Kashmir, India

Suhail Rashid Hajam¹, Waheeda Khan¹ & Aehsan Ahmad Dar¹

¹Faculty of Behavioural Sciences, Shree Guru Gobind Singh Tricentenary University, Gurugram, India

Abstract: The primary goal of this study was to estimate the resilience and post traumatic growth among COVID-19 recovered patients in Kashmir, India. A cross-sectional research design was employed in the current study. The participants included 391 COVID-19 recovered patients who completed the online survey questionnaires (Google Form) including Socio-demographic Questionnaire, Brief Resilience Scale and Posttraumatic Growth Inventory (PTGI) by using a purposive sampling method. The findings disclosed that resilience was significantly associated with monthly income, family type and quarantine type. Further results revealed that relating to others subscale was significantly associated with age and monthly income. New possibilities were significantly associated with monthly income and quarantine type. Personal strength was found to be significantly associated with gender and quarantine type. Spiritual change was significantly associated with family type, quarantine type, age, education, and monthly income. Appreciation of life was significantly associated with age. Finally, total PTG was found to be significantly associated with age and monthly income. The current study provides the evidence of resilience and PTG among the COVID-19 recovered patients residing in Kashmir, India. Moreover, the role of socio-demographic variables in association with resilience and PTG was validated in this study.

Keywords: *COVID-19; Kashmir; Quarantine; Resilience, Posttraumatic Growth*

1.1. INTRODUCTION

The corona virus disease 2019 (COVID-19) was declared as pandemic on March, 11, 2020 that has severely impacted people around the world. Since the outbreak of the novel corona virus disease 2019 in China, more than 250 million individuals have been affected by this virus resulting over 5-million deaths (5120712) globally. A highly transmissible illness known as COVID-19 is caused by the virus named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The initial documented case was in Wuhan, China, during December 2019. Subsequently, it rapidly disseminated across the globe, resulting in a persistent pandemic. The symptoms of COVID-19 exhibit variability, frequently encompassing fever, cough, headache, exhaustion, respiratory challenges, and a diminished sense of smell and taste. These symptoms may manifest within a timeframe of one to fourteen days after exposure to the virus. According to the World Health Organization (2021), vaccinations have been administered to a staggering global population of 7 billion individuals.

During outbreaks of infectious diseases, societies often experience panic and worry. Research has shown that both medical professionals and the general public face heightened risks of mental health issues during such outbreaks, as observed during the severe acute respiratory syndrome (SARS) outbreak in 2003 and the Ebola outbreak in 2018 (Wang et al.,

2003; Waterman et al., 2018). Studies have indicated that public health emergencies can have detrimental effects on individual mental health (Yi et al., 2010; Li et al., 2017). Moreover, the implementation of various measures during a pandemic, such as isolation, quarantine, and restrictions, also impacts the health and wellbeing of individuals.

Restrictive measures, in particular, have been associated with negative psychological effects on both individual and interpersonal levels. Research has revealed that residents subject to restrictions exhibit significantly higher levels of anxiety and depression compared to those who are not restricted (Dong et al., 2020; Zhang D. et al., 2020). The collective evidence highlights the importance of addressing mental health concerns alongside public health measures during infectious disease outbreaks.

The COVID-19 pandemic has affected 216 countries or areas worldwide (WHO, 2020b) and has caused panic and mental health problems for populations and affected people's quality of life, especially those infected with the virus (Bao et al., 2020; Nguyen et al., 2020). The COVID-19 pandemic has indeed become a major threat that greatly affects the physical and mental health of people (Qiu et al., 2020). Experiencing a COVID-19 infection is highly stressful and involves a threat to life and mental health (Luo et al., 2020). McKinsey and Company (2020) estimated that in the U.S. alone, additional 35 million individuals with mental health needs will emerge due to the direct losses from COVID 19 (e.g., loss of health and bereavement) and the indirect impacts of the pandemic on the healthcare system, the economy, and the society. The novelty of the viral pandemic and its pervasive impact on personal lives as well as the economy has resulted in challenges of unprecedented scale to the world community. According to the estimates of the Asian Development Bank, the global economic losses caused by the COVID-19 pandemic could be as high as 8.8 trillion Dollars (Xinhua Net, 2020).

Research has revealed that survivors of severe acute respiratory syndrome (SARS) experienced diverse psychological impacts, even after their recovery and discharge from the hospital (Cheng et al., 2004; Wu et al., 2005a, 2005b). Extensive studies on COVID-19 patients have shed light on the adverse effects of living with the infection, encompassing physical symptoms, depressive symptoms, anxiety, and psychological distress (Chakraborty et al., 2020; Duan & Zhu, 2020; Talevi et al., 2020; Vindegaard & Benros, 2020).

Studies from various countries have documented elevated percentages of post-traumatic stress (PTS) following COVID-19 exposure. For instance, in the U.S., the rate was reported as 31.8% (Liu et al., 2020), while in the U.K., it was 16.8% (Shevlin et al., 2020). Similarly, in Spain, the rate was documented at 15.8% (González-Sanguino et al., 2020), and in Lebanon, it was as high as 33.0% (Fawaz and Samaha, 2020). The available literature underscores the numerous physical and mental health consequences associated with COVID-19 exposure. Notwithstanding the distressing experiences, it is worth noting that individuals who have battled with COVID-19 may also derive psychological or emotional strength from confronting the challenges posed by the disease.

Major disasters or crises are often linked to adverse psychological effects; nevertheless, negative life events also hold the potential for personal growth (Dar et al., 2021; Tedeschi and Calhoun, 2004). The literature on trauma and post-disaster mental health suggests that challenging experiences can lead to positive psychological transformations among those affected (Bonanno, 2004; Brooks, Amlot, Rubin & Greenberg, 2020). As Mencius (ca. 250 B.C.E./2006) stated, "When God is about to place a great responsibility on a great man, the first thing he will do is to frustrate his spirit and will, exhaust his muscles and bones, expose him to starvation and poverty, and harass him with troubles and setbacks so as to stimulate his spirit, toughen his nature, and enhance his abilities.

As far as the conceptualization and definition of resilience is concerned researchers have not yet reached to its unanimous definition. It has been defined as the ability of an

individual to “bounce back” in the face of adversity (Werner & Smith, 1992). According to Luthar, Cicchetti, & Becker (2000) resilience is a “dynamic process encompassing positive adaptation within the context of significant adversity.” Researchers like Bonanno (2004) and Connor and Davison (2003) considered resilience as the ability to adjust to, to adapt or overcome chronic or acute trauma which protects an individual against the development of psychiatric disorders. Therefore, resilience helps an individual to successfully adapt and return to the psychological homeostasis following adversity (Lazarus & Folkman, 1984).

Posttraumatic growth (PTG) characterizes the positive psychological transformations individuals undergo as a result of grappling with traumatic events or challenging situations (Tedeschi & Calhoun, 2004). Moreover, stress-related growth, benefit-finding, perceived benefit, changes in outlook, and psychological thriving are all terms that encompass the aforementioned positive psychological changes (Linley and Joseph, 2004).

Based on existing research, various stress-inducing events, including diseases such as wars, conflicts, SARS, and HIV/AIDS, have been shown to trigger positive psychological changes like resilience and PTG (Dar et al., 2021; Tu and Guo, 2010). In one study, Dar et al. (2021) discovered that gender, social support, and exposure to conflict positively predicted resilience, while educational level and monthly income negatively predicted resilience among individuals who experienced trauma. Resilience was also found to be negatively correlated with symptoms of anxiety, depression, and stress (Hong et al., 2021).

Furthermore, research has indicated that positive emotions are positively associated with PTG, while negative emotions are negatively associated with it (Norlander et al., 2005; Thornton and Perez, 2006; Wang et al., 2011). Emotional processing has also been identified as a facilitating factor in promoting PTG. Manne et al. (2004) proposed that emotional expression and processing significantly predict PTG among breast cancer patients and their partners. For cancer survivors, positive affection, expressive revealing, and general self-efficacy have been highlighted as important predictors of perceived PTG by Yu et al. (2014), while Mo et al. (2013) found that positive emotions, cathartic regulations, and self-efficacy among tumor patients better predict their PTG. Additionally, Zhou et al. (2019) revealed that emotional expression and cognitive reassessment jointly mediate the predictive effect of empathy on PTG. Considering the evidence and its implications, this study aims to investigate the resilience and PTG among COVID-19 recovered patients in Kashmir, India.

1.1.1. Specific Objectives

To assess the resilience and posttraumatic growth among COVID-19 recuperated patients in north Kashmir, India.

To examine the association of demographic variables with resilience and posttraumatic growth among COVID-19 recuperated patients in Kashmir, India.

1.1.2. Hypotheses

There would be significant association of gender with resilience and posttraumatic growth.

There would be significant association of age with resilience and posttraumatic growth.

There would be significant association of quarantine stay with resilience and posttraumatic growth.

There would be significant association of type of family with resilience and posttraumatic growth.

1.2. METHODS

1.2.1. Sample and procedure

This study was conducted on the recuperate Covid patients who were discharged from various isolation / quarantine centres across district between October to 25 November by using purposive sampling method. The study involved 297 individuals who were clinical suspects, secondary contacts, travellers, and immigrants. These quarantine/isolation centres were responsible for providing medical care and essential supplies such as medicines, food, water, personal toiletries, as well as maintaining 24X7 electricity supply and ensuring cleanliness at the facilities. The participants were given a day's time to respond to the survey. The instructions of how to respond to the survey were given to the participants over the phone and virtual support and assistance was offered to the participants with no educational background. Children below the age of 12 years along with any participant who had a documented history of psychiatric illness were excluded from the study.

1.2.2. Measures

In order to collect data for this study, a questionnaire-based survey was carried out online using Google Forms. The questionnaire was divided into three sections: Section A asked about demographic information, Section B asked about post-traumatic growth, and Section C asked about resilience following Covid exposure. Each of these questionnaires is described as follows:

1.2.3. Socio-demographic Information Questionnaire

A self-structured questionnaire based on Socio- demographics was incorporated to collect the inputs from the study participants pertaining to their demographics. The questionnaire included the segments like age, gender, academic qualification, monthly income and family type. For example, how old are you? (18-20 years old or 21-25 years old), "what is your gender" (a man or a woman), and "what is your academic qualification" (no education, undergraduate, graduate, or post-graduate).

1.2.4. Brief Resilience Scale (BRS)

The BRS developed by Smith et. al. (2008) was designed to assess the capacity to rebound and recover from challenging experiences, comprises 6 items, with 3 of them reverse scored. Respondents provide their responses to all six items, and their values are summed up to yield a total score ranging from 6 to 30. This total score is then divided by the total number of items answered, resulting in the resilience score. A higher total score on the BRS indicates greater resilience. The Cronbach's alpha of the BRS, calculated with the current sample, was 0... (the specific value of Cronbach's alpha is not provided in the original text).

1.2.5. Post-Traumatic Growth

Post-traumatic growth is a psychological phenomenon that emerges following a stressful encounter, providing individuals with a way to find purpose in their pain and surpass their struggles. Coined by Richard G. Tedeschi and Lawrence Calhoun at the University of Carolina in the mid-90s, 'post-traumatic growth' describes the flourishing of individuals who have experienced significant challenges, leading to a deeper appreciation for life and enhanced resilience. According to the researchers, PTG represents a positive psychological

transformation in the aftermath of grappling with highly challenging life circumstances (Tedeschi and Calhoun, 2004). PTG entails profound and favorable psychological changes that have the potential to reshape our perception of the world. It brings about a newfound understanding of life, relationships, finances, success, and health. Post-traumatic growth extends beyond mere acknowledgment or acceptance, intertwining personal strength and self-reliance. While the pain may persist, PTG allows us to redirect that pain towards something meaningful for ourselves. This positive transformation is reflected in one or more of the following five areas:

- (1) • Embracing new opportunities - both personally and professionally.
- (2) • Improved personal relationships and increased joy derived from our loved ones.
- (3) • Heightened sense of gratitude toward life as a whole.
- (4) • Greater spiritual connection.
- (5) • Increased emotional strength and resilience

1.2.6. Ethical issues

In conducting the current study, the participants were treated in accordance with the ethical guidelines set forth by the "American Psychological Association" and the "Indian Council of Medical Research." Prior to data collection through questionnaires, provisional approval was obtained from the medical superintendent of the affiliated hospital. Consent from the participants was sought through a virtual acknowledgment process. Moreover, the participants were provided with assurances regarding the privacy, confidentiality, and sensitivity of their personal information.

1.3. RESULTS

Table -1: details of Sample's demographics (N = 391)			
Variables		N	Percentage
Age	18-25years	136	34.8
	26-35 years	132	33.8
	36 Years & above	123	31.5
Gender	Female	238	33.8
	Male	153	39.1
Monthly income	Less than 10000 INR	101	25.8
	10001 to 30000 INR	184	47.1
	30001 to 60000 INR	106	27.1
Family Type	Nuclear	288	73.7
	Joint	103	26.3
Quarantine Stay	Home	76	19.4
	Hospital	315	80.6

Table- 2: Levels of Posttraumatic Growth and Resilience (N=391)			
Variable	N	Percent	Cumulative Percent
Posttraumatic Growth (PTG)			
Low PTG	50	12.8	12.8
Moderate PTG	210	53.7	66.5
High PTG	131	33.5	100.0
Brief Resilience Scale (BRS)			
Low Resilience	168	43.0	43.0
Moderate Resilience	190	48.6	91.6
High Resilience	33	8.4	100.0

Table-3: Showing gender difference on the dimensions of PTG and Resilience (N=391)							
Measures	Gender	N	Mean	(SD)	df	t-value	p-value
Relating to others	Male	238	23.49	5.12	389	1.07	0.29
	Female	153	24.07	5.52			
New Possibilities	Male	238	16.21	4.08	389	1.23	0.22
	Female	153	16.75	4.39			
Personal Strength	Male	238	13.66	2.96	389	2.08	0.04
	Female	153	14.33	3.38			
Spiritual Change	Male	238	9.10	1.53	389	0.69	0.49
	Female	153	8.99	1.70			
Appreciation of Life	Male	238	10.60	2.64	389	1.05	0.29
	Female	153	10.89	2.65			
Overall PTG	Male	238	73.06	13.48	389	1.36	0.17
	Female	153	75.03	14.74			
Overall Resilience	Male	238	3.06	0.57	389	1.65	0.10
	Female	153	3.16	0.58			

Table - 4: disparities between family types in terms of how people relate to one another, new opportunities, personal strength, spiritual growth, appreciation of life, overall PTG, and overall resilience. (N=391)

Measures	Family Type	N	Mean	SD	df	t-value	P-value
Relating to others	Joint	103	23.84	6.80	389	.288	0.77
	Nuclear	288	23.67	4.63			
New Possibilities	Joint	103	16.14	4.98	389	.811	0.42
	Nuclear	288	16.53	3.90			
Personal Strength	Joint	103	13.65	3.68	389	1.026	0.30
	Nuclear	288	14.02	2.93			
Spiritual Change	Joint	103	8.55	2.18	389	3.79	0.00
	Nuclear	288	9.24	1.28			
Appreciation of Life	Joint	103	10.61	3.21	389	.455	0.65
	Nuclear	288	10.75	2.42			
Overall PTG	Joint	103	72.80	18.23	389	.876	0.38
	Nuclear	288	74.20	12.16			
Overall Resilience	Joint	103	3.29	0.55	389	4.01	0.00
	Nuclear	288	3.03	0.57			

Table -5: The t-test differences in relating to others, New Possibilities, Personal Strength, Spiritual Change, Appreciation of Life, Overall PTG & Overall Resilience with respect to quarantine (N=391)

Measures	Type	N	Mean	SD	df	t-value	P-value
Relating to others	Home	76	24.32	7.64	389	1.10	0.27
	Hospital	315	23.57	4.53			
New Possibilities	Home	76	17.38	5.91	389	2.22	0.27
	Hospital	315	16.19	3.66			
Personal Strength	Home	76	14.59	4.53	389	2.07	0.04
	Hospital	315	13.76	2.69			
Spiritual Change	Home	76	7.89	2.41	389	7.56	0.00
	Hospital	315	9.34	1.17			

Appreciation of Life	Home	76	10.82	3.46	389	.375	0.71
	Hospital	315	10.69	2.42			
Overall PTG	Home	76	75.00	21.52	389	.809	0.42
	Hospital	315	73.55	11.51			
Resilience	Home	76	3.39	0.57	389	5.16	0.00
	Hospital	315	3.03	0.56			

Table 6 – The analysis of variance (ANOVA) test differences in Relating to Others, New Possibilities, Personal Strength, Spiritual Change, Appreciation of Life, Overall PTG & Overall Resilience with respect to age. ($N=391$)

Variables	Age Group	N	Mean	SD	df	F-value	p-value
Relating to others	18 to 25 years	136	22.40	5.39	2,388	7.05	0.001
	26 to 35 years	132	24.13	4.91			
	36 years and above	123	24.72	5.28			
New Possibilities	18 to 25 years	136	15.77	4.02	2,388	2.67	0.07
	26 to 35 years	132	16.91	4.05			
	36 years and above	123	16.63	4.51			
Personal Strength	18 to 25 years	136	13.43	3.35	2,388	2.71	0.07
	26 to 35 years	132	14.27	3.01			
	36 years and above	123	14.11	3.00			
Spiritual Change	18 to 25 years	136	8.52	2.00	2,388	12.43	0.00
	26 to 35 years	132	9.31	1.37			
	36 years and above	123	9.37	1.10			
Appreciation of Life	18 to 25 years	136	10.04	2.81	2,388	7.23	0.00
	26 to 35 years	132	10.98	2.43			
	36 years and above	123	11.18	2.55			
Overall PTG	18 to 25 years	136	70.16	14.71	2,388	7.44	0.00
	26 to 35 years	132	75.59	13.15			
	36 years and above	123	76.01	13.36			
Overall Resilience	18 to 25 years	136	3.03	0.54	2,388	1.58	0.21
	26 to 35 years	132	3.13	0.61			

Table 7 - Correlations between in relating to others, New Possibilities, Personal Strength, Spiritual Change, Appreciation of Life, Overall PTG & Overall Resilience (N=391)

Variable	1	2	3	4	5	6	7
1. Resilience	-						
2. Relating to others	.284**	-					
3. New Possibilities	.215**	.711**	-				
4. Personal Strength	.207**	.678**	.691**	-			
5. Spiritual Change	.028	.382**	.355**	.386**	-		
6. Appreciation of Life	.228	.575**	.656**	.541**	.456**	-	
7.Overall PTG	.264**	.895**	.889**	.834**	.538**	.777**	-

** $p < .01$ **Table 8** – ANOVA tests for differences in how people relate to one another, as well as their personal strength, spiritual growth, appreciation of life, total personal growth, and overall resilience in relation to their educational attainment. (N=391)

Levels	Education	N	Mean	SD	df	F-value	p-value
Relating to others	illiterate	61	23.67	3.54	4, 386	0.95	0.44
	Upto 10th class	75	23.28	5.25			
	10th pass	85	24.58	4.75			
	12th pass	115	23.73	5.27			
	graduation and above	55	23.00	7.34			
New Possibilities	illiterate	61	16.16	2.82	4, 386	2.21	0.07
	Upto 10th class	75	15.36	4.08			
	10th pass	85	17.06	3.82			
	12th pass	115	16.91	4.16			
	graduation and above	55	16.16	5.84			
Personal Strength	illiterate	61	13.87	2.03	4, 386	0.64	0.64
	Upto 10th class	75	13.45	3.08			
	10th pass	85	14.21	3.29			
	12th pass	115	13.97	3.16			
	graduation and above	55	14.07	3.92			
Spiritual Change	illiterate	61	9.61	0.61	4, 386	2.74	0.03

	upto 10th class	75	8.84	1.95			
	10th pass	85	8.95	1.50			
	12th pass	115	9.11	1.39			
	graduation and above	55	8.78	2.15			
Appreciation of Life	illiterate	61	10.66	2.07	4, 386	0.82	0.51
	upto 10th class	75	10.31	2.71			
	10th pass	85	10.75	2.64			
	12th pass	115	11.01	2.65			
	graduation and above	55	10.65	3.10			
Total PTG	illiterate	61	73.97	8.45	4, 386	1.18	0.32
	upto 10th class	75	71.24	14.46			
	10th pass	85	75.55	13.27			
	12th pass	115	74.74	13.63			
	graduation and above	55	72.67	19.14			
Total Resilience	illiterate	61	3.03	0.55	4, 386	0.91	0.46
	upto 10th class	75	3.14	0.52			
	10th pass	85	3.05	0.59			
	12th pass	115	3.09	0.61			
	graduation and above	55	3.20	0.60			

Table - 9: The analysis of variance (ANOVA) test differences in relating to others, New Possibilities, Personal Strength, Spiritual Change, Appreciation of Life, Total PTG & Total Resilience with respect to income. ($N=391$)

Levels	Income Slab	N	Mean	Std. Deviation	df	F-value	p-value
Relating to others	Less than 10000 INR	101	24.91	6.02	2,388	6.04	0.00
	10001 to 30000 INR	184	23.82	4.40			
	30001 to 60000	106	22.41	5.66			
New Possibilities	Less than 10000 INR	101	17.61	4.68	2,388	5.73	0.00
	10001 to 30000 INR	184	16.11	3.68			
	30001 to 60000	106	15.83	4.41			
Personal Strength	Less than 10000 INR	101	14.28	3.50	2,388	0.86	0.42
	10001 to 30000 INR	184	13.79	2.76			
	30001 to 60000	106	13.81	3.41			
Spiritual Change	Less than 10000 INR	101	8.84	1.83	2,388	4.88	0.01
	10001 to 30000 INR	184	9.32	1.19			
	30001 to 60000	106	8.80	1.89			

Appreciation of Life	Less than 10000 INR	101	11.11	2.85	2,388	1.53	0.22
	10001 to 30000 INR	184	10.58	2.38			
	30001 to 60000	106	10.57	2.86			
Total PTG	Less than 10000 INR	101	76.75	16.71	2,388	3.85	0.02
	10001 to 30000 INR	184	73.63	11.64			
	30001 to 60000	106	71.42	14.55			
Total Resilience	Less than 10000 INR	101	3.29	0.61	2,388	7.87	0.00
	10001 to 30000 INR	184	3.05	0.57			
	30001 to 60000	106	3.00	0.53			

1.4. DISCUSSION

The current study intended to assess the Post Traumatic Growth (PTG) and Resilience among Covid-19 recovered patients of a Quarantine isolation centre in North Kashmir Baramulla India. The study's primary goal was to evaluate the outcomes of Resilience and PTG among Covid -19 exposed adults residing in Kashmir. The Survey was based on a sample of 391 participants which included 240 Male and 151 Female. Out of the sample of 391 Participants 188 were aged between 18-29 years and 203 people were over the age of 30. By way of education 135 were below 10th and 256 were above 10th. The Participants family type comprised 26.59% of Joint Families, 72.12% Nuclear Families and 1.27% Lived alone. 102 Participants earned upto INR10,000 and 289 Participants earned more than INR 10,000. 236 of the total participants were diagnosed as Covid Positive by RTPCR testing, 118 had been in contact with the Covid positive patients and 37 had a Covid positive member in the family. Amongst the participants 80.56% stayed in the Hospital & 17.3% stayed at home. Based on survey responses 88.23% of the participated in the survey quarantined for 14 days, 6.90% quarantined for 7 days and 4.85% quarantined for either less than 7 days or more than 14 days. The study also depicted that 1.27% of the participants had death in the family due to Covid 19. The findings disclosed that resilience was significantly associated with monthly income, family type and quarantine type. Further results revealed that relating to others subscale was significantly associated with age and monthly income. New possibilities were significantly associated with monthly income and quarantine type. Personal strength was found to be significantly associated with gender and quarantine type. Spiritual change was significantly associated with family type, quarantine type, age, education, and monthly income. Appreciation of life was significantly associated with age. Finally, total PTG was found to be significantly associated with age and monthly income.

1.5. CONCLUSION

Gender was significantly associated with personal strength wherein females demonstrated higher scores as compared to males. Thus the hypothesis stating that “there will be a significant association of gender with resilience and posttraumatic growth” is partially accepted.

There will be a significant association of type of family with spiritual change & overall resilience. Spiritual change was significantly higher among participants from nuclear families & resilience was higher among participants from joint families. Thus the hypothesis IInd

stating that “There will be a significant association of type of family with resilience and posttraumatic growth”. is partially accepted.

Quarantine type was significantly associate with personal strength, spiritual change and overall resilience. Personal strength was found higher among home quarantine participants, spiritual change was higher among hospital quarantine participants and overall resilience was higher among home quarantine participants. Thus the hypothesis 3 states that the “There will be a significant association of quarantine stay with resilience and posttraumatic growth is partially accepted.

Age was significantly associated with relating to others, spiritual change, appreciation of life and overall PTG. According to the Post Hoc analysis the score on dimensions of relating to others, spiritual change, appreciation of life and overall PTG was found to be higher among elder participants as compared to 18-25 years and 26-35 years older participants. Thus the hypothesis 4 stating that “There will be a significant association of age with resilience and posttraumatic growth” is partially accepted.

Disclosure statement

Regarding the research, writing, and/or publication of this article, the author(s) reported that they had no current or potential conflicts of interest.

REFERENCES

- Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: Address mental health care to empower society. *Lancet*, 395(10224), e37–e38. [https://doi.org/10.1016/S0140-6736\(20\)30309-3](https://doi.org/10.1016/S0140-6736(20)30309-3)
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events?. *American Psychologist*, 59(1), 20-28
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events?. *American Psychologist*, 59(1), 20-28
- Brooks, S., Amlot, R., Rubin, G. J., & Greenberg, N. (2020). Psychological resilience and post-traumatic growth in disaster-exposed organisations: overview of the literature. *BMJ Mil Health*, 166(1), 52-56.
- Chakraborty, C., Sharma, A. R., Sharma, G., Bhattacharya, M., & Lee, S. S. (2020). SARS-CoV-2 causing pneumonia-associated respiratory disorder (COVID-19): Diagnostic and proposed therapeutic options. *European Review for Medical and Pharmacological Sciences*, 24(7), 4016–4026. https://doi.org/10.26355/eurev_202004_20871
- Cheng, S. K., Wong, C. W., Tsang, J., & Wong, K. C. (2004). Psychological distress and negative appraisals in survivors of severe acute respiratory syndrome (SARS). *Psychological Medicine*, 34(7), 1187–1195. <https://doi.org/10.1017/s0033291704002272>
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82.

- Dar, A. A., Deb, S., Thomas, S., Dhamodharan, M., Jahan, F., Sumaiya, B., & Gupta, S. (2021). Evidence and Predictors of Resilience among Young Adults Exposed to Traumatic Events of the Armed Conflict in Kashmir. *Child and Youth Services*, 1-21.
- Dong, E., Du, H., and Gardner, L. (2020). An Interactive Web-Based Dashboard to Track COVID-19 in Real Time. Available online at: <https://www.arcgis.com/apps/dashboards/bda7594740fd40299423467b48e9ecf6> (accessed March 2, 2020)
- Dong, R. Q., Zhou, X., Jiao, X. N., Guo, B. S., Sun, L. P., and Wang, Q. (2020). Psychological status in medical isolation persons during outbreak of COVID-19. *Rehabil. Med.* 30, 7–10.
- Duan, L., & Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *Lancet Psychiatry*, 7(4),300–302. [https://doi.org/10.1016/S2215-0366\(20\)30073-0](https://doi.org/10.1016/S2215-0366(20)30073-0)
- Fawaz, M., and Samaha, A. (2020). COVID-19 quarantine: post-traumatic stress
- Fu, W., Wang, C., Zou, L., Guo, Y., Lu, Z., Yan, S., & Mao, J. (2020). Psychological health, sleep quality, and coping styles to stress facing the COVID-19 in Wuhan, China. *Translational Psychiatry*, 10(1), 225. <https://doi.org/10.1038/s41398-020-00913-3>
- González-Sanguino, C., Ausín, B., ÁngelCastellanos,M., Saiz, J., López-Gómez, A., Ugidos, C., et al. (2020). Mental health consequences during the initial stage of the 2020 coronavirus pandemic (COVID-19) in Spain. *Brain Behav. Immun.* 87, 172–176. doi: 10.1016/j.bbi.2020.05.040
- Hong, Y., Lee, J., Lee, H. J., Kim, K., Cho, I. K., Ahn, M. H., ... & Chung, S. (2021). Resilience and Work-Related Stress May Affect Depressive Symptoms in Nursing Professionals during the COVID-19 Pandemic Era. *Psychiatry Investigation*, 18(4), 357.
- Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. NY: Springer Publishing Company.
- Li, L., Wang, Z., Lu, M., and Tian, Y. (2017). A study on current situation of psychological crisis intervention in public emergencies. *J. Int. Psychiatry* 44, 193–196. doi: 10.13479/j.cnki.jip.2017.02.055
- Linley, P. A., and Joseph, S. (2004). Positive change following trauma and adversity: a review. *J. Trauma. Stress* 17, 11–21. doi: 10.1023/B:JOTS.0000014671.27856.7e
- Liu, C. H., Zhang, E., Wong, G. T. F., Hyun, S., and Hahm, H. C. (2020). Factors associated with depression, anxiety, and PTSD symptomatology during the COVID-19 pandemic: clinical implications for U.S. young adult mental health. *Psychiatry Res.* 290:113172. doi: 10.1016/j.psychres.2020.113172
- Luo, M., Guo, L., Yu, M., Jiang, W., & Wang, H. (2020). The psychological and mental impact of coronavirus disease 2019 (COVID-19) on medical staff and general public - A systematic review and meta-analysis. *Psychiatry Research*, 291, 113190. <https://doi.org/10.1016/j.psychres.2020.113190>

- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71, 543-562.
- Manne, S., Ostroff, J., Winkel, G., Goldstein, L., Fox, K., and Grana, G. (2004). Posttraumatic growth after breast cancer: patient, partner and couple perspectives. *Am. Psychosom. Soc.* 66, 442–454. doi: 10.1097/00006842-200405000-00025
- Mencius (2006). Mencius (Wan, L. H., and Lan, X., Trans.). Beijing: Zhonghua Book Company. (Original work published ca. 250 B.C.E.).
- Mo, K., Tang, T., Chen, L., Yu, Y. J., Peng, L., and Li, M. (2013). The relationships among post-traumatic growth, affect and emotion regulation and self-efficacy in cancer patients. *Chin. J. Nurs.* 48, 334–336.
- Nguyen, H. C., Nguyen, M. H., Do, B. N., Tran, C. Q., Nguyen, T., Pham, K. M., Pham, L. V., Tran, K. V., Duong, T. T., Tran, T. V., Duong, T. H., Nguyen, T. T., Nguyen, Q. H., Hoang, T. M., Nguyen, K. T., Pham, T. T. M., Yang, S.-H., Chao, J. C.-J., & Duong, T. V. (2020).
- Norlander, T., Schedvin, H. V., and Archer, T. (2005). Thriving as a function of affective personality: relation to personality factors, coping strategies and stress. *Anxiety Stress Coping* 18, 105–116. doi: 10.1080/10615800500093777
- Orkibi, H., and Ram-Vlasov, N. (2019). Linking trauma to post-traumatic growth and mental health through emotional and cognitive creativity. *Psychol. Aesth. Creat. Arts* 13, 416–430. doi: 10.1037/aca0000193
- People with suspected COVID-19 symptoms were more likely depressed and had lower health-related quality of life: The potential benefit of health literacy. *Journal of Clinical Medicine*, 9(4), 965. <https://doi.org/10.3390/jcm9040965>
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: Implications and policy recommendations. *General Psychiatry*, 33(2), e100213. <https://doi.org/10.1136/gpsych-2020-100213>
- Shevlin, M., McBride, O., Murphy, J., Miller, J. G., Hartman, T. K., Levita, L., et al. (2020). Anxiety, depression, traumatic stress, and COVID-19 related anxiety in the UK general population during the COVID-19 pandemic. *BJPsych Open* 6:e125. doi: 10.1192/bjo.2020.109
- Stein, J. Y., Levin, Y., Bachem, symptomatology among Lebanese citizens. *Int. J. Soc. Psychiatry* 66, 666–674. doi: 10.1177/0020764020932207
- Talevi, D., Socci, V., Carai, M., Carnaghi, G., Faleri, S., Trebbi, E., Di Bernardo, A., Capelli, F., & Pacitti, F. (2020). Mental health outcomes of the CoViD-19 pandemic. *Rivista di Psichiatria*, 55(3), 137–144.
- Tang, L., and Ying, B. (2020). Investigation and analysis of mental health status and influencing factors of middle school students during the COVID-19 pandemic. *Mental Health Educ. Prim. Second. Sch.* 20, 57–61.

- Tedeschi, R. G., and Calhoun, L. G. (2004). Post-traumatic growth: conceptual foundations and empirical evidence. *Psychol. Inquiry* 15, 1–18.
- Thornton, A. A., and Perez, M. A. (2006). Post-traumatic growth in prostate cancer survivors and their partners. *Psycho Oncol.* 15, 285–296. doi: 10.1002/pon.953
- Tu, Y. J., and Guo, Y. Y. (2010). Post-traumatic growth: conception, influential factors and relationships with mental health. *Adv. Psychol. Sci.* 18, 114–122.
- Vindegard, N., & Benros, M. E. (2020). COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. *Brain, Behavior, and Immunity*, 89, 531–542.
- Wang, C. H., Qi, J., Li, Y. H., Li, H. J., Liu, L. M., Yuan, S., et al. (2020). Investigation on mental health of parents of children and analysis of related factors during the COVID-19 epidemic period. *Chin. J. Woman Child Health Res.* 31, 166–172.
- Wang, F. Q., Xu, J. Y., Liu, Q. A., Zhou, X. F., Li, J. Y., Wang, X. Y., et al. (2003). Comparison of psychological status between patients with SARS and physicians, nurses treating SARS. *Chin. Mental Health J.* 17, 532–533. doi:10.3321/j.issn:1000-6729.2003.08.006
- Wang, H. Y., Liu, J. E., Li, Y. Y., Jin, N. N., Hua, L., and Su, Y. L. (2011). Analysis on growth state and its influencing factors of breast cancer patients after trauma. *Chin. Nurs. Res.* 25, 484–487.
- Waterman, S., Hunter, E. C. M., Cole, C. L., Evans, L. J., Greenberg, N., Rubin, G. J., et al. (2018). Training peers to treat Ebola centre workers with anxiety and depression in Sierra Leone. *Int. J. Soc. Psychiatry* 64, 156–165. doi: 10.1177/ 0020764017752021
- Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High-risk children from birth to adulthood*. Ithaca: New York University Press.
- Wordometer (2020). COVID-19 Coronavirus Pandemic. Available online at: <https://www.worldometers.info/coronavirus/> (accessed August 18, 2020).
- World Health Organization (2021). Coronavirus disease (COVID-19) pandemic. Retrieved on November 18, 2021 from https://www.who.int/emergencies/diseases/novel-coronavirus2019?gclid=Cj0KCQiAkNiMBhCxARIsAIDDKNUt6OB772Ot8QkLzYrNBoAKO2ehhLDqqINwg5XiBqm7XBy-ZOoEPYAhG7EALw_wcB
- World Health Organization. (2020b). Coronavirus disease (COVID-19) pandemic. [https://www.who.int/emergencies/diseases/ novel-coronavirus-2019](https://www.who.int/emergencies/diseases/novel-coronavirus-2019)
- Wu, K. K., Chan, S. K., & Ma, T. M. (2005a). Posttraumatic stress after SARS. *Emerging Infectious Diseases*, 11(8), 1297–1300. <https://doi.org/10.3201/eid1108.041083>
- Wu, K. K., Chan, S. K., & Ma, T. M. (2005b). Posttraumatic stress, anxiety, and depression in survivors of severe acute respiratory syndrome (SARS). *Journal of Traumatic Stress*, 18(1), 39–42. <https://doi.org/10.1002/jts.20004>

- Wu, K., and Wei, X. (2020). Analysis of psychological and sleep status and exercise rehabilitation of front-line clinical staff in the fight against COVID-19 in China. *Med. Sci. Monit. Basic Res.* 26:e924085. doi: 10.12659/MSMBR.924085
- Xinhua Net (2020). ADB: The COVID-19 Epidemic has Caused Global Economic Losses of up to 8.8 Trillion US Dollars. Available online at: http://www.xinhuanet.com/video/2020-05/18/c_1210622804.htm (accessed August18, 2020).
- Yi, L., Wang, Z. C., Jiang, Z. K., Zheng, Y. J., and Wu, W. Z. (2010). Research progress of psychological intervention in public health emergencies. *Chin. J. Public Health* 26, 929–930. doi: 10.11847/zgggws2010-26-07-72
- Yu, Y. J., Peng, L., Tang, T., Chen, L., Li, M., and Wang, T. (2014). Effects of emotion regulation and general self-efficacy on post-traumatic growth in Chinese cancer survivors: assessing the mediating effect of positive affect. *Psycho Oncol.* 23, 473–478. doi: 10.1002/pon.3434
- Zhang, D., Tian, Y. X., and Wu, X. C. (2020). Psychological reactions and influencing factors of isolation in public health emergencies. *J. South China Normal Univ. (Soc. Sci. Ed.)* 65, 31–41, 189.
- Zheng, C., Wu, S. Q., Wang, C., Han, R. Z., He, Q. Q., and Wang, P. G. (2020). Mental health status among residents in Hubei province during novel coronavirus disease epidemic: an online survey. *Chin. J. Public Health* 36,657–660.
- Zhou, X. (2020). Psychological guidance in dynamically coping with COVID-19. *Peoples Tribune* 29, 32–35.
- Zhou, X., Wu, X. C., Yang, X. M., Wang, W. C., and Tian, Y. X. (2019). Emotional expression and cognitive reappraisal mediate the relation between empathy and post-traumatic growth amongst adolescents after Ya'an Earthquake. *J. Psychol. Sci.* 42, 1325–1331. doi: 10.16719/j.cnki.1671-6981.20190607

Psychosocial Implications in Health & Wellbeing: Looking Beyond the Boundaries

Faculty of Social Sciences and Humanities
Universiti Teknologi Malaysia

2023
EDITION



9 786299 175316 2