



RESEARCH PAPER

Evaluating the Efficacy of Role Play Intervention in Mitigating the Effects of COVID-19 and Facilitating Academic Achievement in Children with Mild Psychological Issues

¹ Aqsa Mukhtar Ahmad* Dr. Um I Lela and ² Javeria Nouman*

1. BS Clinical Psychology, Department Humanities & Social Sciences GIFT University Gujranwala, Punjab, Pakistan
2. Associate professor, Department Humanities & Social Sciences GIFT University Gujranwala, Punjab, Pakistan
3. Department Humanities & Social Sciences GIFT University Gujranwala, Punjab, Pakistan

*Corresponding Author: javarianoman1998@gmail.com

ABSTRACT

The COVID-19 pandemic has disrupted global education, impacting students' psychological health and academic performance. This study examines role play therapy's effectiveness in improving the psychological health and academic performance of 8-11-year-old 3rd-grade children affected by pandemic-related disruptions. A quasi-experimental design with a sample size of 12 participants was used, employing assessment tools such as the Strength and Difficulty Questionnaire (SDQ), Child Outcome Rating Scale (CORS), and Health Questionnaire (HQ) for evaluations before and after the intervention. The research aims to provide evidence-based insights into role play therapy as an intervention strategy in educational settings, addressing the pandemic's impact on children's development and guiding educators, mental health professionals, and policymakers. The study emphasizes the importance of supporting children facing adversity and considering psychological issues and academic performance together. The findings show that role play therapy effectively reduces mild psychological issues in children affected by the COVID-19 pandemic, highlighting the value of a holistic approach in post-pandemic recovery. Future research should involve larger and more diverse participant groups, establish supportive school management systems.

KEYWORDS Academic Performance, COVID-19 Pandemic, Psychological Health, Role Play Therapy, School Going Children

Introduction

The COVID-19 pandemic has had a significant impact on global education, with school closures affecting over 1.5 billion students worldwide (UNESCO, 2020). The closure of schools and restrictions on movement have disrupted academic performance and led to concerns about students' psychological well-being (Fore, 2020). This study aims to examine the effects of role play therapy on academic performance and mild psychological issues in 3rd grade children (aged 8-11) in a private school in Gujranwala, Pakistan (Yaseen, et. al. 2020). It recognizes the link between low academic performance and mild psychological issues and highlights the potential of role play therapy as an intervention to address these challenges. The study aims to uncover the complex interplay of various factors affecting academic outcomes during this exceptional period, including technology accessibility, quality of remote learning resources, parental involvement, and socioeconomic disparities (UNICEF, 2021). The research also emphasizes the importance of the early stages of a child's education for their cognitive, social, and emotional growth, which have been impacted by the pandemic (Zarnab & Muzaffar, 2023; Ahmady et al., 2021). The study aims to investigate the effects of role

play on academic performance and psychological issues in the post-COVID-19 era. It acknowledges the disruptions caused by the pandemic on children's psychological well-being and highlights the potential of play therapy to mitigate these risks (Brooks et al., 2020; Cohen et al., 2020). Role play therapy, which encourages children to assume different roles and engage in pretend scenarios, has been recognized as a valuable tool in promoting children's learning, development, and emotional well-being (Landreth, 2012). The study aims to address the gap in research on the effects of role play therapy on academic performance and psychological well-being in the context of the COVID-19 pandemic. It seeks to determine whether implementing role play therapy sessions can positively impact 3rd grade students' academic performance and alleviate mild psychological issues, such as anxiety or social withdrawal.

Literature Review

Art therapies, such as music therapy, dance and movement therapy, and drama therapy, have proven effective in addressing mental health issues in various populations. Music therapy has been found to reduce symptoms of depression and anxiety (Maratos et al., 2018), while dance and movement therapy has shown effectiveness in reducing anxiety symptoms (Ritterfeld et al., 2017). Drama therapy has been beneficial for children with autism spectrum disorder, improving social skills and reducing anxiety (Wang et al., 2016). These therapies are particularly useful for individuals who struggle to express themselves verbally, such as those with trauma-related issues or developmental disabilities. Art therapies are commonly employed in hospitals, clinics, and educational settings, with increasing utilization in schools (Moula et al., 2022).

Play therapy, which incorporates role-playing, is an effective technique for assessing and treating maladaptive behaviors in children (Kendall et al., 1993). A study conducted with children diagnosed with ADHD demonstrated that play therapy had positive effects on attention, hyperactivity reduction, impulse control, and emotional and behavioral disturbances (Abo-Elmagd et al., 2017). Similarly, children diagnosed with autism spectrum disorder have benefited from intensive child-centered play therapy, which showed improvements in social impairment and overall, ASD symptoms (Schottelkorb et al., 2020).

It is important to address the rising concern of autism spectrum disorder, which has seen a significant increase in prevalence. Children with ASD often face emotional and behavioral challenges, including aggression and attention problems (Salazar et al., 2015). Interventions such as child-centered play therapy have shown promise in supporting children with ASD, as demonstrated by the pilot randomized control study (Schottelkorb et al., 2020).

The Child Behavior Checklist (CBCL) was used to assess children's emotional and behavioral well-being, with scores above 63 indicating clinical concern (Achenbach et al., 2001). In a randomized control trial, children who received Child-Centered Play Therapy (CCPT) showed significant reductions in ASD core symptoms and behavioral issues, including externalizing problems, attention problems, and aggression (Ogawa et al., 2020). Anxiety disorders were found to be highly prevalent among children and adolescents, affecting their overall well-being and development (Auerbach et al., 2018). Play therapy was effective in reducing anxiety symptoms, improving emotional intelligence, self-esteem, and academic performance (Ady et al., 2020). Play therapy with a life skills approach also led to a significant decrease in shyness and anxiety among elementary school students (Moghtader et al., 2022). Additionally, play therapy with a life skills approach was effective in reducing separation anxiety in preschool children (Adinepour et al., 2022). Arts therapies, including art therapy, were beneficial for

children's mental health and well-being, promoting emotional expression, attachment, and overall positive development (Karkou, 2022; Malchiodi, 2019). These therapies aligned with theories such as attachment theory, the PERMA theory, and self-determination theory, which emphasized the importance of positive emotions, meaningful relationships, and personal growth (Bowlby, 1969; Seligman et al., 2011; Ryan et al., 2000). The Strengths and Difficulties Questionnaire (SDQ) and the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) were used to assess participants' emotional strengths, difficulties, and mental well-being (Goodman, 1997).

The COVID-19 pandemic has had a significant impact on children's psychological issues and academic performance. To address these challenges, effective intervention strategies are needed. Role play is a valuable technique for improving children's social and emotional skills by engaging in simulated real-life situations, children can practice problem-solving, communication, empathy, and conflict resolution in a safe environment.

Theoretical Framework

This research study utilizes three key theoretical frameworks to examine the effectiveness of role play therapy as an intervention for addressing academic performance and mild psychological issues among 3rd grade children in the post-pandemic era.

Psychodrama Theory (PT): Drawing from role play therapy, this theoretical framework emphasizes the use of drama, role-playing, and group dynamics to address mild psychological issues and improve academic performance. Psychodrama theory provides a structured and supportive environment for children to explore their inner conflicts and engage in theatrical activities.

Attachment Theory (AT): Based on the work of John Bowlby, attachment theory is applied to understand and address mild psychological issues in children and their impact on academic performance.

Ecological Theory (ET): Urie Bronfenbrenner's ecological theory informs the study's approach to addressing mild psychological issues and academic performance through role play therapy. This framework recognizes the interconnectedness of various systems, including family, school, and broader societal contexts, in shaping children's development.

Material and Method

Study Design

This research study aimed to conduct a pilot study utilizing a Randomized Controlled Trial to evaluate the effects of an independent variable, namely role play therapy intervention, on children in primary schools. The primary goal was to investigate the impact of disrupted education after COVID-19 on children's foundational education and how this disruption may have contributed to low academic performance, subsequently leading to mild psychological issues as the dependent variable. The therapy intervention was implemented on a single group consisting of 1012 participants, and no control arm was included. The study evaluated pre- and post-intervention findings to determine the effectiveness of the therapy.

Demographical Description

The demographics of research centers on 3rd grade school children aged 8 to 11, comprising two sections. The researcher collected samples from both sections, carefully ensuring an equal distribution of six girls and 6 boys in the study sample. This approach guarantees a balanced representation of both genders within age and grade group.

Sample

The purposive sampling technique will be employed for the intervention study, enrolling a single group of twelve participants for pre and post-test evaluations. Screening will be conducted to determine the inclusion and exclusion criteria, the study will include children aged 8 to 11 years who will have experienced COVID-19 and will exhibit mild psychological issues (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior) and low academic performance, and single-parent households, requiring intervention. Excluding children below 8 years and above 11 years of age, as well as Children currently undergoing psychological treatment for severe conditions that may significantly impact the research outcomes.

Research Instruments

Strength and Difficulty Questionnaire (SDQ).

The administration of the three designated standardized questionnaires is scheduled. The Strengths and Difficulties Questionnaire (SDQ), created by Goodman in 2001, is a tool used by teachers to evaluate the behavioral and emotional strengths and challenges of children and teenagers. It consists of 25 questions divided into five categories. The SDQ is given to parents or teachers of young people aged 4 to 17 (Goodman, 1997).

The SDQ is highly valuable for guiding interventions and support services.

The Quality-of-Life Scale for Children (EQ-5D-5L).

The EQ-5D-5L (Quality of Life scale for children) developed by (Wille et al., 2010), aims to assess the well-being of children and adolescents aged 8 to 15 years. It provides a standardized measure of health-related quality of life, capturing the impact of health conditions and interventions across multiple dimensions. The EQ-5D-5L includes a visual analog scale (VAS) for respondents to rate their overall health status on a scale of 0 to 100, and the EQ-5D-5L scale comprises five items, including Cronbach's alpha reliability of five dimensions was 0.85.

The Child Outcome Rating Scale (CORS).

The Child Outcome Rating Scale (CORS) developed by (Low et al., 2012). It administered to the children, serving as a session-by-session assessment tool aimed at evaluating various aspects of their life functioning that are prone to change through therapeutic intervention, for children aged 6 to 12. The ORS is a concise measure consisting of four items, each represented by a visual analogue scale in the form of a 10cm line.

Procedure

The process began by testing the participants and giving them a questionnaire to assess their understanding of the items. If any item was not understood, it was addressed

and revised. Informed consent was obtained from both the guardians and the teacher. The intervention itself spanned a duration of three months, with one session taking place each week, lasting approximately 40-45 minutes. To ensure the appropriateness of the participants, screening tools were utilized for both teachers and students, considering specific criteria for inclusion and exclusion. After three months when the sessions terminated, pre-test and post-test assessments were conducted in a single group, enabling a comparison between the two stages. The research method comprised of three phases. The first phase involves the scale translation process aimed to effectively adapt an assessment tool for the target population, considering cultural and linguistic aspects. This involved a systematic approach with key phases. Initially, three forward translations from the source to target language were generated by proficient language experts to capture.

Results and Discussion

The collected data was analyzed using Statistical Package for Social Science (SPSS) and Pearson Correlation, Descriptive Statistics, Paired Sample T-Test, and Plots were used for this purpose.

Table 1
Descriptive Demographics of Pretest and Posttest

	TSDQ	TSDQP	THQ	THQP	TCORS	TCORSP
Valid	12	12	12	12	12	12
Mean	26.917	21.000	10.917	6.833	25.417	34.333
St. Deviation	4.999	2.335	1.782	0.718	1.730	0.778
Skewness	1.479	-.360	-.545	.262	-.401	-.719
Std. Error of Skewness	.637	.637	.637	.637	.637	.637
Kurtosis	2.639	-1.110	-.653	-.685	-.302	-.792
Std. Error of Kurtosis	1.232	1.232	1.232	1.232	1.232	1.232
Minimum	20.00	17.00	8.00	6.00	22.00	33.00
Maximum	39.00	24.00	13.00	8.00	28.00	35.00
Reliability	0.780		0.760		0.859	

Note: TSDQ= Pre-test for Strength and Difficulty Questionnaire, TSDQP=

Post-test for Strength and Difficulty Questionnaire, THQ= Pre-test for Health Questionnaire, THQP= Post-test for Health Questionnaire, TCORS= Pre-test for Child

Outcome rating Scale, TCORSP= Post-test for Child Outcome rating Scale. The table presents descriptive statistics for the Strength and Difficulty Questionnaire (SDQ), EQ-5D-5L as a Health-Related Quality of Life, and the Child Outcome Rating Scale (CORS). There are 12 pre-observations and 12 post-observations for each scale. The mean values for SDQ are 26.917 (pre-test) and 21.000 (post-test). For EQ-5D-5L, the mean values are 10.917 (pre-test) and 6.833 (post-test). The mean values for CORS are 25.417 (pre-test) and 34.333 (post-test). The standard deviation values indicate the spread of the data from the mean, with SDQ having values of 4.999 (pre-test) and 2.335 (post-test). For EQ-5D-5L, the standard deviation values are 1.782 (pre-test) and 0.718 (post-test). CORS has standard deviation values of 1.730 (pre-test) and 0.778 (post-test). Skewness measures the asymmetry of the data distribution, with values of 1.479 (pre-test) and -0.360 (post-test) for SDQ, -0.545 (pre-test) and 0.262 (post-test) for EQ-5D-5L, and 0.401 (pre-test) and -0.719 (post-test) for CORS. The standard error values associated with skewness are all 0.637. Kurtosis measures the "tailedness" of the data distribution, with values of 2.639

(pre-test) and -1.110 (post-test) for SDQ, -0.653 (pre-test) and -0.685 (post-test) for EQ-5D-5L, and -0.302 (pre-test) and -0.792 (post-test) for CORS. The standard error values associated with kurtosis are all 1.232. Reliability values indicate the consistency and stability of measurements over time, with values of 0.780 (pre-test) for SDQ, 0.760 (pre-test) for EQ-5D-5L, and 0.859 (pre-test) for CORS. Table 2

Table 2
Paired Sample T-Test (N=12)

	TSDQ	TSDQP	THQ	THQP	TCORS	TCORSP
Variable Statistics	4.161		9.398		-17.856	
Z	3.059		3.059		-3.059	
Df	11		11		11	
P	0.002		< .001		< .001	
Effect Size	1.201		2.713		-5.155	

Note: The values of '<0.001' in the P column indicate statistically significant results with $p < .05$, signifying that this difference is statistically significant. TSDQ= Pre-test for Strength and Difficulty Questionnaire, TSDQP= Post-test for Strength and

Difficulty Questionnaire, THQ= Pre-test for Health Questionnaire, THQP= Post-test for Health Questionnaire, TCORS= Pre-test for Child Outcome rating Scale, TCORSP= Post-test for Child Outcome rating Scale. The table represents the Cohen's d Paired Sample T-Test, the statistics of TSDQ and TSDQP for $t(11) = 4.161, p < .05$ which indicates that this difference is statistically significant, and the effect size for this comparison is 1.201, which indicates a moderate effect. Similarly, the t-test statistics of THQ and THQP for $t(11) = 9.398, p < .05$ which indicates that there is a significant difference, and the effect size for this comparison is 2.713, indicating a large effect. Regarding the statistics for TCORS and TCORSP $t(11)$

$= -17.856, p < .05$ indicating the significant difference, and the effect size for this comparison is -5.155, indicating a large effect.

Raincloud Difference Plots

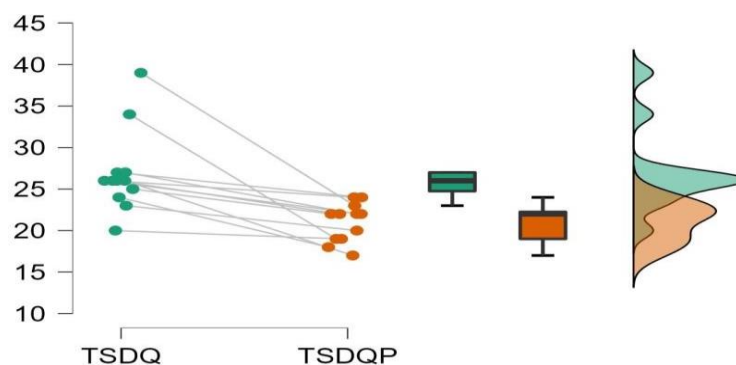


Figure 1 Pre and Post-test Strength and Difficulties Questionnaire

The Strength and Health Difficulties Questionnaire used to assess for pre and posttest, initial scores obtained from pretest of SDQ were 15, and posttest scores were obtained 40 after giving intervention. Therefore subtracting 15 from yields a difference of 25, indicating a significant and valuable outcome of the intervention. Based on the raincloud plot, it is evident that the intervention had a positive impact, the improvement

of 25 point suggests that the intervention effectively enhanced participants' performance and achieved the desired outcome.

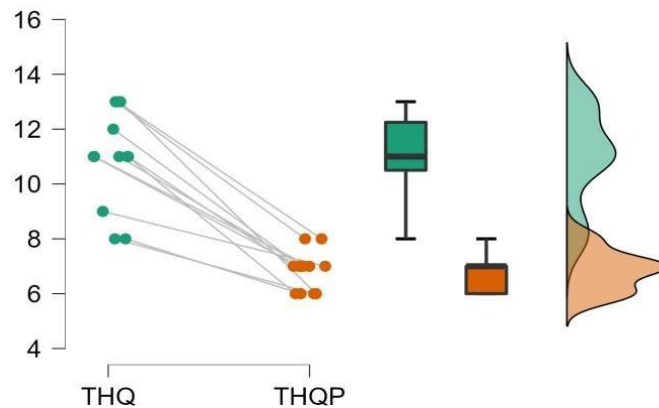


Figure 2 Pre and Post-test Health Questionnaire

The Health Questionnaire was utilized to access pre and posttest evaluation, initial score was obtained 6 before the intervention, and after the intervention score obtained 14. Therefore, subtracting 6 yields a difference of 8, indicating a valuable improvement of intervention. Based on the raincloud plot, it is indicated that intervention had a positive impact, and effectively enhance participant's performance and achieved the desired outcome.

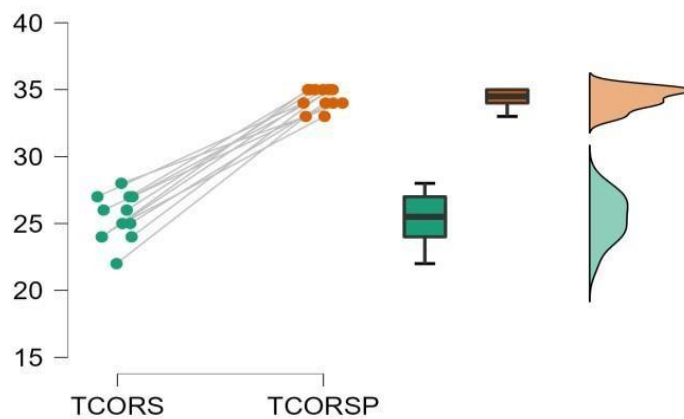


Figure 3 Pre and Post-test Child Outcome Rating Scale

The Child Outcome Rating Scale (CORS) was utilized to evaluate participants' pre and posttest scores. Initially, the participants scored 20 on the pretest of the CORS, and following the intervention, their posttest scores increased to 35. Consequently, there was a notable difference of 15 points, indicating a significant and valuable outcome resulting from the intervention. Based on the raincloud plot provides further evidence of the intervention's positive impact. The observed improvement of 15 points signifies that the intervention successfully enhanced participants' performance and accomplished the intended outcome.

Discussion

The study aimed to assess the effectiveness of Role Play intervention in children with mild psychological issues affected by COVID-19. Role Play therapy significantly reduced psychological issues, improved emotional regulation, social interactions, and empathy (Karkou, 2020). Previous research consistently showed positive changes in children's emotional and behavioral health following role play therapy. The intervention

also demonstrated improvements in overall daily functioning and quality of life and the utilization of the Children's Outcome Rating Scale (CORS) enhanced the assessment of children's progress (Sofer et al., 2014), and there was a significant correlation between pre- and post-intervention CORS scores (Moula et al., 2020). While the study had limitations due to a small sample size, future research with larger samples can validate and strengthen the observed positive effects (Moula et al., 2020). Arts therapy interventions effectively addressed mild psychological issues, impacting children's daily life, sleep patterns, emotional and behavioral challenges, and academic performance (qualitative data). Overall, role play therapy showed promise in promoting children's psychological well-being and social-emotional functioning during the COVID-19 crisis.

Conclusion

In conclusion, this study provides strong evidence supporting the effectiveness of role play therapy for children aged 8-12 with mild psychological issues related to the COVID-19 pandemic. The use of assessment tools allowed for tracking progress and gaining insights into the children's perspectives. Expanding the participant pool and considering cultural factors are important for future research. Role play therapy has transformative potential in improving the psychological well-being of children and addressing educational challenges post-pandemic.

Implications of the Current Research

The current study has important implications for various stakeholders, highlighting the potential of role play intervention in mitigating the adverse effects of the COVID-19 pandemic on children's mild psychological issues and academic achievement. Integrating role play activities in educational settings can provide targeted support to children who have experienced psychological challenges during the crisis, emphasizing the significance of therapeutic approaches within education. Role play interventions can foster an environment that enhances academic achievement and supports the overall psychological health of children, recognizing the interconnectedness between their psychological and academic development.

Limitations

The limited availability of participants and inconsistent implementation across classrooms may impact the generalizability and effectiveness of the interventions. The duration of the intervention may not fully capture its impact on academic progress and psychological health. Ethical considerations and practical limitations may prevent the inclusion of children with severe conditions in the research.

Recommendations

Future research should aim to recruit a larger and more diverse group of participants for role play interventions to increase generalizability. Emphasis should be placed on maintaining a clean and safe environment for interventions, raising awareness among school management systems. Longer engagement periods should be considered to allow participants to fully explore and internalize the therapeutic process.

References

- Abo-Elmagd, M. H., Khaled, A. F., Abou-El-Naga, S. A., & El-Nagger, S. A. (2017). The effectiveness of play therapy on attention deficit hyperactivity disorder (ADHD) among primary school children. *Journal of Education and Practice*, 8(8), 129-135. <https://files.eric.ed.gov/fulltext/EJ1139243.pdf>
- Achenbach, T. M., Rescorla, L. A., & Ivanova, M. Y. (2001). *Manual for the ASEBA school-age forms & profiles*. University of Vermont, Research Center for Children, Youth, & Families.
- Ady, H., Suryapani, L., & Fauziah, S. (2020). The effect of play therapy on anxiety and academic performance in elementary school students. *International Journal of Evaluation and Research in Education*, 9(3), 533-539. <https://doi.org/10.11591/ijere.v9i3.20520>
- Ahmady, S., Shahbazi, S., & Heidari, M. (2021). COVID-19 pandemic and the challenges faced by healthcare workers: A qualitative study. *BMC Family Practice*, 22(1), 1-9. <https://doi.org/10.1186/s12875-021-01440-3>
- Auerbach, R. P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., ... & Kessler, R. C. (2018). WHO World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology*, 127(7), 623-638. <https://doi.org/10.1037/abn0000362>
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 395(10227), 912-920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2020). *Trauma-focused CBT for children and adolescents: Treatment applications*. Guilford Publications.
- El-Nagger, S. A., Abo-Elmagd, M. H., Khaled, A. F., & Abou-El-Naga, S. A. (2017). The impact of play therapy on the reduction of symptoms of attention deficit hyperactivity disorder (ADHD) among primary school children. *International Journal of Psycho-Educational Sciences*, 6(1), 41-52. <https://psycnet.apa.org/record/2017-27508-004>
- Fore, H. H. (2020). A wake-up call: COVID-19 and its impact on children's health and wellbeing. *The Lancet Global Health*, 8(7), e861-e862. [https://doi.org/10.1016/S2214-109X\(20\)30238-2](https://doi.org/10.1016/S2214-109X(20)30238-2)
- Kendall, P. C., Ronan, K. R., & Epps, J. (1991). Aggression in children/adolescents: Cognitive-behavioral treatment. In D. Peters, M. Steinberg, & K. Krakower (Eds.), *Handbook of aggression and violence* (pp. 341-360). Oxford University Press.
- Landreth, G. L. (2012). *Play therapy: The art of the relationship* (3rd ed.). Routledge.
- Maratos, A., Crawford, M. J., & Procter, S. (2011). Music therapy for depression: It seems to work, but how? *The British Journal of Psychiatry*, 199(2), 92-93. <https://doi.org/10.1192/bjp.bp.110.087494>
- Moula, Z., Aithal, S., Karkou, V., & Powell, J. (2022). A systematic review of the effectiveness of art therapy delivered in school-based settings for children and young

- people with special educational needs. *International Journal of Art Therapy*, 27(1), 33-43. <https://doi.org/10.1080/17454832.2021.1922006>
- Nursanna, K., Widodo, A., & Wungu, E. (2020). Effectiveness of play therapy on anxiety, emotional intelligence, and self-esteem in elementary school students. *International Journal of Evaluation and Research in Education*, 9(1), 208-214. <https://doi.org/10.11591/ijere.v9i1.20435>
- Ogawa, Y., Schottelkorb, A. A., & Swan, K. L. (2020). Intensive child-centered play therapy for children on the autism spectrum: A pilot study. *International Journal of Play Therapy*, 29(1), 17-29. <https://doi.org/10.1037/pla0000117>
- Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry*, 56(3), 345-365. <https://doi.org/10.1111/jcpp.12381>
- Ritterfeld, U., Schmitt, A., Böhm, R., & Rossaint, R. (2017). Dance and movement therapy for elderly with physical and cognitive impairments: An interdisciplinary approach. *European Geriatric Medicine*, 8(4), 354-360. <https://doi.org/10.1016/j.eurger.2017.04.004>
- UNICEF. (2021). *The state of the world's children 2021: On my mind - Promoting, protecting and caring for children's mental health*. UNICEF.
- Wang, X., Zhao, L., & Zhang, R. (2016). The effect of drama therapy on social skills in children with autism spectrum disorder. *Chinese Journal of Clinical Psychology*, 24(4), 749-752. <https://doi.org/10.16128/j.cnki.1005-3611.2016.04.032>
- Yaseen, Z., Jathol, I. & Muzaffar, M. (2020). Covid-19 and its Impact on South Asia: A Case Study of Pakistan, *Global International Relations Review*, III(I), 20-26
- Zarnab, & Muzaffar, M. (2023). Exogenous Shock and Citizen's Satisfaction with Government Policies: A Functional Data Analysis Approach to Investigate the Role of Previous Financial Crisis and COVID-19. *Pakistan Social Sciences Review*, 7(2), 34-45.