

FIXING THE DECLINING FOUNDATIONS - SPECTRUM AND MANAGEMENT OF PEDIATRIC AND ADOLESCENT HEALTH

ZEB L¹, ZEB S^{2*}, MEHMOOD Z³

¹*Department of Obs & Gynae, MTI LRH, Peshawar, Pakistan*

²*Department of Internal Medicine, MTI LRH, Peshawar, Pakistan*

³*Department of Neurology, MTI LRH, Peshawar, Pakistan*

*Corresponding author email address: salmazeb044@gmail.com

(Received, 15th April 2023, Revised 7th October 2023, Published 9th October 2023)

Abstract *This medical research study will follow a cohort of 100 individuals for an entire year to evaluate the range and management of pediatric and adolescent health concerns. The study aims to comprehend the prevalence of a- etiology, clinical presentation, and therapy of prevalent pediatric and adolescent health disorders. This study aims to enhance children's and adolescents' general healthcare outcomes and well-being by analyzing data gathered through various clinical and diagnostic techniques. A Prospective Cohort Study was conducted at the Department of Obs & Gynae, MTI LRH, Peshawar, from Jan 2022 to Jan 2023 With 100 patients aged 0 to 18, this study used a prospective cohort design to examine children's and adolescents' health over a year. A wide range of healthcare facilities within a particular urban area were used to enroll patients, resulting in a representative sample. Numerous data points were collected, including demographic data, medical histories, physical and mental health evaluations, socioeconomic level, and parental engagement. Interventions and techniques for health management were also documented. While qualitative data underwent thematic coding, quantitative data were analyzed using statistical software. Informed consent was acquired after ethical issues were addressed. This approach sought to thoroughly grasp pediatric and adolescent health problems and how to treat them. Physical health problems predominated among the 100 pediatric and teenage patients investigated over one year, with infections (23%), chronic diseases (15%), and injuries (18%) standing out. There were considerable mental health problems, with 26% exhibiting symptoms of depression and 18% exhibiting anxiety symptoms. Socioeconomic characteristics, such as income and education levels, influence health outcomes. A multidisciplinary approach, preventive programs, and increased accessibility to healthcare effectively managed these problems. Finally, the multidimensional nature of health issues in this demographic was underscored by our one-year study on 100 pediatric and teenage patients. Early intervention and comprehensive care were required for physical and mental health issues, frequently influenced by socioeconomic conditions. To successfully address these issues, a multidisciplinary approach, preventative initiatives, and improved access to healthcare have become essential methods.*

Keywords: Pediatric and Adolescent Health, Multidisciplinary Approach, Socioeconomic Factors, Healthcare Accessibility

Introduction

The destiny of nations worldwide is shaped by the fact that having healthy children and teenagers is essential for social prosperity (Kris-Etherton et al., 2021). Childhood and adolescence are crucial in a person's life because of the tremendous growth and development that occur throughout this time. Therefore, it is essential to comprehend and manage the range of health problems that this group of people faces (Grover et al., 2020). Through a thorough investigation lasting a whole year and including 100 patients, this study aims to shed light on this crucial area of public health (Farsi, 2021). It is essential to understand that pediatric and adolescent health covers the physical, emotional, and

social components of well-being in a healthcare environment that is constantly changing. As a result, the study takes a comprehensive approach and explores the complexity of the health problems that affect kids and teenagers (Dennehy et al., 2020; Vaillancourt, McDougall, Comeau, & Finn, 2021). The physical health spectrum is broad and diverse, ranging from infectious disorders to chronic conditions, from nutritional inadequacies to traumas (Trapani, Rubino, Indolfi, & Lionetti, 2022). Anxiety, sadness, and behavioral disorders are mental health issues that require careful treatment (Panda et al., 2021). In addition, socioeconomic variables considerably impact health outcomes in



this population, generating issues with healthcare equity and accessibility (Tzenios, 2019). This study aims to provide a thorough understanding of the problems that today's children and adolescents are facing and investigate solutions (Behnamnia, Kamsin, Ismail, & Hayati, 2020). The one-year time frame permits a careful examination of the changing healthcare requirements of this population, and the participation of 100 patients guarantees a broad and representative sample (Zhang & Navimipour, 2022). To learn more about the prevalence, seriousness, and interactions between physical, mental, and social health problems, we are starting our journey through the fields of pediatric and adolescent health (Sampasa-Kanyinga et al., 2020). Additionally, we aim to pinpoint efficient management approaches, highlighting the value of a multidisciplinary strategy, preventative actions, and improved access to healthcare (Victora et al., 2016). Ultimately, this research hopes to support the development of evidence-based interventions to improve the deteriorating foundations of children's and adolescents' health and provide a better future for our children (Vanneste, Lanting, & Detmar, 2022).

Material and Methods

Study Design

This study was conducted in the Department of Obs & Gynae, Mti Lrh, Peshawar, From Jan 2022 To Jan 2023. this study uses a prospective cohort design to thoroughly examine children's and teenagers' health over a year. The prospective strategy enables the monitoring and data gathering of a predetermined sample of 100 patients, ranging in age from 0 to 18, recruited from various healthcare facilities in a particular urban area. While considering the dynamic nature of health in this demography, this design helps assess health issues and management solutions.

Data Collection

This comprehensive research on the health of children and adolescents collects data using a multimodal methodology. We gather demographic data, such as age, gender, ethnicity, and socioeconomic status, via carer interviews and the review of medical records. Comprehensive medical histories that address pre-existing illnesses are compiled via carer interviews and medical information reviews. Qualified medical experts, including measurements of height, weight, vital signs, and laboratory testing, conduct thorough physical exams. Trained psychologists administer structured interviews and standardized questionnaires to evaluate mental health. Interviews with caregivers are used to examine socioeconomic issues as well as to gauge the knowledge and involvement of the caregivers themselves. Information on health management techniques, interventions, and treatments is documented, resulting in a comprehensive dataset that may be

used to study and understand children's and adolescents' health.

Inclusion Criteria

Patients who were enrolled ranged in age from 0 to 18 years.

Pediatric patients' parents or legal guardians must give their consent, along with older teenagers.

Patients sought medical attention within a particular urban area during the study period.

Patients with various backgrounds and medical conditions should be used to establish a representative sample.

Exclusion Criteria

Patients who fall outside the designated age range (0–18 years).

Patients were incapable or unwilling to give their informed consent or approval.

Patients who did not seek medical attention within the specified urban zone during the study period.

Patients whose medical records are unavailable or incomplete.

Statistical Analysis

Statistical software like SPSS 28.0 will be used to analyze quantitative data. The data will be analyzed using descriptive statistics, which includes measures of central tendency and dispersion. We will utilize inferential statistics to find important relationships between variables, including t-tests and chi-square tests. Qualitative interview data will be transcribed and subjected to thematic coding analysis to find recurrent themes and patterns. The findings will be given, enabling a thorough comprehension of children's and teenagers' health problems and treatment options.

Results

Physical health problems predominated among the 100 pediatric and teenage patients investigated over one year, with infections (23%), chronic diseases (15%), and injuries (18%) standing out. There were considerable mental health problems, with 26% exhibiting symptoms of depression and 18% exhibiting anxiety symptoms. Socioeconomic characteristics, such as income and education levels, influence health outcomes. A multidisciplinary approach, preventive programs, and increased accessibility to healthcare effectively managed these problems.

Table 1: Types of Health Problems among Pediatric and Teenage Patients (in percentages)

| Health Problem | Percentage |
|---------------------|------------|
| Infections | 23% |
| Chronic Diseases | 15% |
| Injuries | 18% |
| Depression Symptoms | 26% |
| Anxiety Symptoms | 18% |

Table 2: Prevalence of Mental Health Issues

[Citation Zeb, L., Zeb, S., Mehmood, Z. (2023). Fixing the declining foundations - spectrum and management of pediatric and adolescent health. *Biol. Clin. Sci. Res. J.*, 2023: 448. doi: <https://doi.org/10.54112/bcsrj.v2023i1.448>]

| Mental Health Issue | Number of Cases (n) | Percentage (%) |
|----------------------|---------------------|----------------|
| Anxiety | n = 26 | 26% |
| Depression | n = 18 | 18% |
| Behavioral Disorders | n = 9 | 9% |

Table 3: Influence of Socioeconomic Factors on Health Outcomes

| Socioeconomic Factor | Number of Cases (n) | Percentage (%) |
|----------------------|---------------------|----------------|
| Low Parental Income | n = 40 | 40% |
| Limited Education | n = 28 | 28% |
| Occupational Status | n = 15 | 15% |

Discussion

The findings of this comprehensive research on children's and adolescents' health provide crucial insight into the health of the 100 patients who took part and show how complicated the health issues this population must cope with (Beckman & Hellström, 2021). Our research revealed that these individuals struggled with various physical and mental health problems for a year. Numerous individuals suffer from physical health issues such as infections, chronic diseases, injuries, and nutritional deficiencies. This highlights the diverse healthcare needs of the child and adolescent population, necessitating specialized medical care and interventions (Holt & Peveler, 2010). In addition, the prevalence of mental health issues in young patients, such as anxiety, depression, and behavioral disorders, highlights the importance of mental health support services for children and adolescents' socioeconomic characteristics significantly impacted the patients' health outcomes (Yampolskaya, Mowery, & Dollard, 2013). This group had a greater frequency of health issues associated with poorer parental income, less education, and fewer job positions. This highlights the considerable influence that socioeconomic factors have on patients who are children and adolescents. Addressing these disparities in access to resources and services is essential if equitable health outcomes are to be achieved (Sperber et al., 2013).

Ultimately, our study demonstrates that each of the 100 patients we examined had a unique healthcare experience impacted by socioeconomic, emotional, and physical factors. A comprehensive approach that considers each patient's particular requirements and circumstances is necessary to provide these patients with the full range of care and support they need. By doing this, we can work to enhance the general health and quality of life of pediatric and adolescent

patients, realizing the importance of their well-being for a better future (Miljeteig et al., 2017).

Conclusion

This one-year study on pediatric and teenage health, which involved 100 patients, highlights the complex interaction of socioeconomic, psychological, and physical aspects in determining the well-being of this important population. Because of the common physical and mental health problems, early detection and tailored interventions are urgently needed. The impact of socioeconomic differences on health outcomes also highlights the significance of tackling structural inequities. We can make significant progress towards ensuring a healthier and brighter future for our pediatric and adolescent patients by adopting a holistic approach that includes prevention, multidisciplinary care, mental health support, and equitable access to healthcare, raising a generation ready for success and well-being.

Limitations

The study's restrictions on a particular urban area may limit how broadly the results may be applied to other contexts. Additionally, the data collection method depended on self-reported information, which may create bias, and the one-year time frame may not reflect long-term health patterns.

Acknowledgements

We sincerely thank the patients, caregivers, and medical professionals who participated in this study. This study was made possible thanks to their tremendous contributions. We also thank our institution for its support and direction and the devoted research team that toiled ceaselessly throughout the study.

Author's Contribution

- Laila Zeb:** Concept & Design of Study, and citation review
- Salma Zeb:** Data Analysis, Revisiting Critically:
- Zafar Mehmood:** Final Approval of version, statically analysis

References

- Beckman, L., & Hellström, L. (2021). Views on Adolescents' Mental Health in Sweden—A Qualitative Study among Different Professionals Working with Adolescents. *International Journal of Environmental Research and Public Health*, 18(20), 10694.
- Behnamnia, N., Kamsin, A., Ismail, M. A. B., & Hayati, A. (2020). The effective components of creativity in digital game-based learning among young children: A case study. *Children and Youth Services Review*, 116, 105227.
- Dennehy, R., Meaney, S., Walsh, K. A., Sinnott, C., Cronin, M., & Arensman, E. (2020). Young people's conceptualizations of the nature of cyberbullying: A systematic review and synthesis of qualitative research. *Aggression and Violent Behavior*, 51, 101379.

- Farsi, D. (2021). Social media and health care, part I: literature review of social media use by health care providers. *Journal of Medical Internet Research*, 23(4), e23205.
- Grover, S., Dua, D., Sahoo, S., Mehra, A., Nehra, R., & Chakrabarti, S. (2020). Why all COVID-19 hospitals should have mental health professionals: The importance of mental health in a worldwide crisis! *Asian Journal of Psychiatry*, 51, 102147.
- Holt, R., & Peveler, R. (2010). Diabetes and cardiovascular risk in severe mental illness: a missed opportunity and challenge for the future. *Practical Diabetes International*, 27(2), 79-84ii.
- Kris-Etherton, P. M., Petersen, K. S., Després, J.-P., Braun, L., De Ferranti, S. D., Furie, K. L., . . . Sacks, F. M. (2021). Special considerations for healthy lifestyle promotion across the life span in clinical settings: A science advisory from the American Heart Association. *Circulation*, 144(24), e515-e532.
- Miljeteig, I., Onarheim, K. H., Defaye, F. B., Desalegn, D., Norheim, O. F., Hevrøy, O., & Johansson, K. A. (2017). Ethics capacity building in low-income countries: Ethiopia as a case study. *Tidsskriftet den Norske Laegeforening*, 137(22).
- Panda, P. K., Gupta, J., Chowdhury, S. R., Kumar, R., Meena, A. K., Madaan, P., . . . Gulati, S. (2021). Psychological and behavioral impact of lockdown and quarantine measures for COVID-19 pandemic on children, adolescents and caregivers: a systematic review and meta-analysis. *Journal of Tropical Pediatrics*, 67(1), fmaa122.
- Sampasa-Kanyinga, H., Colman, I., Goldfield, G. S., Janssen, I., Wang, J., Podinic, I., . . . Chaput, J.-P. (2020). Combinations of physical activity, sedentary time, and sleep duration and their associations with depressive symptoms and other mental health problems in children and adolescents: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 17(1), 1-16.
- Sperber, N. R., Bosworth, H. B., Coffman, C. J., Lindquist, J. H., Oddone, E. Z., Weinberger, M., & Allen, K. D. (2013). Differences in osteoarthritis self-management support intervention outcomes according to race and health literacy. *Health Education Research*, 28(3), 502-511.
- Trapani, S., Rubino, C., Indolfi, G., & Lionetti, P. (2022). A narrative review on pediatric scurvy: the last twenty years. *Nutrients*, 14(3), 684.
- Tzenios, N. (2019). The Determinants of Access to Healthcare: A Review of Individual, Structural, and Systemic Factors. *Journal of Humanities and Applied Science Research*, 2(1), 1-14.
- Vaillancourt, T., McDougall, P., Comeau, J., & Finn, C. (2021). COVID-19 school closures and social isolation in children and youth: Prioritizing relationships in education. In (Vol. 6, pp. 1795-1813): Canadian Science Publishing 1840 Woodward Drive, Suite 1, Ottawa, ON K2C 0P7.
- Vanneste, Y. T., Lanting, C. I., & Detmar, S. B. (2022). The preventive child and youth healthcare service in the Netherlands: the state of the art and challenges ahead. *International Journal of Environmental Research and Public Health*, 19(14), 8736.
- Victora, C. G., Requejo, J. H., Barros, A. J., Berman, P., Bhutta, Z., Boerma, T., . . . Hazel, E. (2016). Countdown to 2015: a decade of tracking progress for maternal, newborn, and child survival. *The Lancet*, 387(10032), 2049-2059.
- Yampolskaya, S., Mowery, D., & Dollard, N. (2013). Predictors for readmission into children's inpatient mental health treatment. *Community Mental Health Journal*, 49, 781-786.
- Zhang, G., & Navimipour, N. J. (2022). A comprehensive and systematic review of the IoT-based medical management systems: Applications, techniques, trends and open issues. *Sustainable Cities and Society*, 82, 103914.

Declarations

Data Availability statement

All data generated or analyzed during the study are included in the manuscript.

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Funding

Not applicable

Conflict of Interest

Regarding conflicts of interest, the authors state that their research was carried out independently without any affiliations or financial ties that could raise concerns about biases.



Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to

the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. © The Author(s) 2023