



## Systematic Review on Quality of Life Among Children

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### ABSTRACT

The quality of life (QoL) in children is a crucial metric of a nation's social and economic progress. It indicates the degree to which children's fundamental needs, including health, education, nourishment, shelter, recreation, and emotional well-being, are met. Nonetheless, children's living situations vary among geographical locations. Spatial variations resulting from disparities in natural contexts, socio-economic conditions, access to public services, and infrastructural development lead to substantial discrepancies in overall quality of life. In this article, systematic review on quality of life among children have been discussed.

**Keywords:** *Quality, Life, Children.*

### INTRODUCTION

A geographical examination of children's quality of life facilitates a spatial comprehension of disparities and well-being trends. It assists in pinpointing areas where children face deprivation or benefit, correlating their living conditions with geographical elements such as urbanization, land utilization, resource allocation, and environmental quality. Rural and urban settings frequently exhibit divergent realities—urban children may benefit from superior access to educational and healthcare facilities but contend with challenges such as pollution and congestion, whereas rural children may experience cleaner surroundings yet endure deficiencies in infrastructure and possibilities.

In developing nations such as India, children represent a significant segment of the population; yet, their living conditions are shaped by various variables, including poverty, geographical disparities, cultural norms, and governmental policies. Geographical inequalities in income, education, healthcare facilities, and social awareness directly influence developmental outcomes. Consequently, delineating and examining these variances is essential for devising region-specific child welfare policies and developmental initiatives. The objective of the study was to the systematic review on quality of life among children.

### SYSTEMATIC REVIEW OF LITERATURE

Tafesse, S. et al. (2024). Congenital myelomeningocele, commonly referred to as spina bifida (SB), is the most prevalent congenital malformation of the central nervous system. In addition to its effects on neonatal mortality, SB influences the long-term quality of life in impacted children. This study aimed to examine the health-related quality of life (HRQoL) in children with spina bifida (SB)

receiving treatment in Ethiopia's premier pediatric neurosurgery institution. This hospital-based cross-sectional study was conducted at Zewditu Memorial Hospital in Addis Ababa, Ethiopia, from June 30 to September 30, 2022. It included 232 youngsters, utilizing data collected via interviewer-administered questionnaires. The Health-Related Quality of Life (HRQoL) was assessed utilizing the PedsQL 4.0, a 23-item generic instrument. The participants in the study had a median age of 5 years (interquartile range = 3 to 6 years). The overall mean scores on the PedsQL 4.0 were recorded at  $68.59 \pm 18.01$ . The lowest scores were recorded in inquiries regarding school participation, while physical and emotional functioning exhibited the greatest values. Multiple regression studies indicated a high correlation between variables such as family income, monthly household income, number of children, and the presence of a neurogenic bladder and HRQoL. This study addresses a deficiency in the literature by offering insights into the health-related quality of life (HRQoL) and its correlates for children with spina bifida (SB) in resource-limited environments. We advocate for the proactive incorporation of quality-of-life indicators into neurosurgical care policy and practice. Considering the lasting effects of SB, therapies that improve HRQoL help guide children in achieving their potential and increasing societal engagement and contribution.

Katapally, T.R. et al. (2024). The pandemic of physical inactivity adversely affects the physical and mental health of children and adolescents and significantly contributes to the burden of non-communicable diseases (NCDs), especially in low- and middle-income countries. The pervasive impacts of climate change, including severe weather phenomena and deteriorating air quality, are intensifying the pandemic of physical inactivity, underscoring the necessity for comprehensive measures to mitigate environmental obstacles while encouraging physical activity. No research has investigated the relationship between perceptions of active school transportation (AST), environmental perceptions, and moderate-to-vigorous physical activity (MVPA) among children and youth in India from their perspective, despite the potential advantages of AST for physical activity and the environment. This cross-sectional, observational study involved the distribution of digital survey links to 1,042 children and adolescents aged 5 to 17 (50.3% male; 49.7% female). Participants were sourced from 41 educational institutions across 28 rural and urban areas in India. Children and adolescents supplied data regarding several sociodemographic variables, perceptions of criminal activity and air pollution, as well as aspects related to peer support. Data on MVPA were gathered via a modified version of the IPAQ short-form questionnaire. The sample was stratified by age, gender, and region, yielding seven multiple linear regression models to evaluate the relationship between AST and MVPA. These data indicate that advocating for AST may enhance MVPA and help alleviate the NCD burden among children and youth in India. Future policies and interventions must prioritize programs that advance AST, taking into account various sociodemographic characteristics and tackling environmental issues like crime perceptions and air pollution.

Sehgal, M. et al. (2024). Developing a child health index is particularly significant in the Indian context due to the substantial burden of inadequate child health, the differences in child health across various social, economic, and geographical regions, and the lack of a complete index. This study centers on the creation and verification of a Child Health Index (CHI) for India. This index, derived from publicly accessible district-level data and principal component analysis, comprises 16 variables

across six domains: socio-cultural factors, child health status, determinants of child health (including both risk and protective factors), household environment, and health system and policy. A variety of statistical tests were performed to ensure both internal and external validation. The program designed to forecast child mortality has been validated. This study offers a novel instrument for assessing child health and identifying health disparities among children at the district level in India. Thus, it can be utilized by policymakers, health service providers, and other stakeholders engaged in child welfare to assess and enhance child health across time and geography.

Lone, A. et al. (2024). Children with impairments encounter distinct problems that might impact their well-being and quality of life (QOL). This study sought to evaluate the quality of life and coping mechanisms employed by children with impairments, as well as to investigate the impact of socio-demographic factors on these aspects. This cross-sectional study, conducted in Saudi Arabia with children aged 6 to 18 years, employed a stratified random sampling method to assure representation from diverse demographic groups. The Short Form-12 (SF-12) was utilized to evaluate the quality of life in the sample population. The Brief COPE Inventory was utilized to assess coping methods in children. A one-way analysis of variance was utilized to assess variations in quality of life, coping methods scores, and demographic variables. Multiple regression analyses were conducted to assess the influence of demographic variables on predicting quality of life, with statistical significance determined at  $p < 0.05$ . The study's results distinctly indicated substantial disparities in the mean quality of life scores based on gender, age, kind of disability, duration of disability, educational qualifications, family status, family occupation, and housing status. Female participants had superior quality of life in physical functioning compared to their male counterparts. Children with intellectual disabilities reported enhanced quality of life in general health, liveliness, social functioning, and mental health. Individuals with seven to eight years of impairment exhibited elevated ratings in physical functioning, energy, and mental health. Children with parents employed in private agencies and residing in rented accommodations exhibited superior scores on the overall health dimensions of quality of life. The results indicated that the length of the disability was a significant predictor of quality of life (QOL). The average scores across many dimensions of coping techniques indicated that male participants employed dysfunctional coping mechanisms, in contrast to problem-focused and emotion-focused coping, whereas female children predominantly utilized emotion-focused coping. Emotion-focused coping was markedly elevated among participants with visual, learning, and intellectual challenges. Children with auditory difficulties and other disabilities exhibited elevated dysfunctional coping scores. This study emphasizes the importance of demographic aspects in comprehending and enhancing the well-being of a heterogeneous sample of impaired adolescents. It provides significant insights into the nuanced aspects influencing quality of life. Future interventions and policies can utilize these findings to improve the quality of life for those with disabilities and to promote a more supportive and inclusive framework.

Pezzulo, C. et al. (2023). Identifying and enhancing resource efficiency for public health and development planning necessitates comprehension of the detailed subnational spatial distribution of variables related to reproductive, maternal, new-born, child, and adolescent health and development. National governments are committed to attaining the Sustainable Development Goals, improving the

quality of life for their populations, and alleviating poverty. Utilizing predominantly data from the 2015–16 National Family Health Survey (NFHS–4), we created an open-access compilation of high-resolution gridded and district-level health and development datasets in India. To provide policy assistance with spatially specific data, we offer estimates with greater granularity than those provided in NFHS-4. Bayesian approaches were employed to create high-resolution maps at a 5 km x 5 km scale for a collection of indicators with available data (36 datasets); district-level data was produced for specific other indicators. The administrative boundaries of Indian districts were employed to aggregate all the data. A total of 138 district-level and high-resolution datasets encompassing 28 indicators were generated and made publicly available.

Agidew, B.T. et al. (2023). This study examines the trends, geographic distribution, and determinants influencing mortality among Ethiopian children under five years of age. This study utilized secondary data from the Ethiopian Demographic and Health Surveys conducted in 2000, 2005, 2011, and 2016. The impact of variables on the mortality age of children under five was analyzed utilizing a multilevel partial ordinal logistic regression model. The final analysis included 3,997 fatalities among neonates, infants, and toddlers. In the years 2000, 2005, 2011, and 2016, there were 1508, 1054, 830, and 605 fatalities of children under five, respectively. From 2000 to 2016, there was a significant reduction in new-born, baby, and toddler mortality rates, decreasing from 33.3% to 17.4%, 42.4% to 12.6%, and 45.2% to 11.6%, respectively. Each survey year revealed significant spatial autocorrelation in mortality, as determined by the Global Moran's Index analysis. There was a notable intraclass connection in the age at death of children under five among regions. Moreover, neonatal mortality in children under five was less prevalent among those born in medical facilities compared to home deliveries. Newborns had higher mortality rates than infants and toddlers over the study period from 2000 to 2016, with significant spatial disparities observed across Ethiopian zones. The mortality rate of children under five in Ethiopia is significantly affected by various factors, including the child's gender, maternal age, religion, birth size, gender of the household head, delivery location, type of birth, antenatal care, wealth index, spatial auto covariate, year of the Demographic and Health Survey, place of residence, and region. Throughout the four survey years in Ethiopia, there has been a general decline in the percentage of child mortality among those under five.

de Oliveira, C.A.S. et al. (2022). Develop and assess the psychometric characteristics of the Quality of Life in the Neighborhood Questionnaire for Children aged 8 to 10 years (QoL-N-Kids 8–10). The current study was carried out in a medium-sized city in southeastern Brazil, with children from four public schools and one private school. The research comprised three stages: a) the creation and validation of item content via a qualitative study and an expert panel ( $n = 8$ ); b) assessment of face validity through a pilot study and interviews with children ( $n = 30$ ); and c) implementation of the final version ( $n = 261$ ) to evaluate internal consistency, temporal stability, construct validity, and discriminant validity. All statistical tests conducted during this phase were analyzed with a 5% significance threshold. Out of the 56 items created, 38 were retained in the scale and subjected to face validation. During this phase, the children proposed the addition of an extra item, culminating in a measure of 39 elements. The questionnaire underwent reliability testing (Cronbach's alpha) and exploratory component analysis, resulting in a 27-item instrument categorized into five domains. The

measures demonstrated strong internal consistency (Cronbach's alpha = 0.805) and robust test-retest reliability (weighted Kappa = 0.305 to 0.724; intraclass correlation coefficient = 0.917). Discriminant validity revealed significant variations between groups ( $p < 0.001$ ) based on sex, age, wealth, and place of residence. The QoL-N-Kids 8–10 measure demonstrated adequate psychometric characteristics and shows promise for evaluating neighborhood quality of life in children aged eight to ten.

Gallotta, M.C. et al. (2022). This study aimed to examine the correlation among weight status, motor coordination, and physical activity levels in school-aged Italian children residing in rural and urban environments; to analyze disparities in neighborhood walkability across school zones in various geographical locations and living conditions; and to assess the feasibility of predicting children's weight status based on motor coordination, physical activity levels, geographical areas, living environments, and gender. We assessed the physical activity level, gross motor coordination, and anthropometric features of 1,549 children aged 8 to 13. The BMI of Central children was determined to be higher than that of Northern and Southern youths. Furthermore, children in the North exhibited the highest motor quotient and physical activity level, with those in the South and Central regions trailing behind. Children from Southern Italy attended school in the neighborhood with the highest Walk Score®. In comparison to children in rural areas, urban children attended schools in neighborhoods with superior Walk Scores®. A greater relative risk for obesity was associated with a diminished motor quotient (MQ), reduced physical activity (PA) levels, living in car-dependent neighborhoods, and residing in rural areas. A link existed between female gender and a reduced relative risk of obesity. The alarmingly elevated prevalence of childhood obesity and overweight, coupled with motor coordination impairments, underscores the urgent necessity for targeted physical activity interventions in the pediatric demographic.

Tonon, G. & Mikkelsen, C. (2022). This article analyses the characteristics and facilities of children's homes and their corresponding satisfaction levels. This study encompasses 580 twelve-year-old children residing in the General Pueyrredón (PGP) area, located in the southeastern region of Buenos Aires Province, Argentina. The LOMAScYT Program at the National University of Lomas de Zamora in Argentina has authorized the UNICOM-Institute of Social Studies within the School of Social Sciences to execute this survey as a component of a research initiative. This study primarily examined and evaluated various aspects of children's lives, including the number of rooms and bathrooms in their homes, the accessibility of a private study space, the availability of a private or shared bedroom, the presence of water, electricity, and sewage services, and the level of satisfaction with their living conditions.

Trahorsch, P. & Bláha, J. D. (2022). The objective of this study is to assess the impact of the visual quality of printed geography textbooks on the nature of children's ideas, specifically on the concept of geographical location. Visuals serve as a graphical depiction of a specific phenomenon. A two-tier diagnostic assessment was conducted utilizing three categories of high- and low-quality physical-geographical pictures to accomplish this purpose. The research study involving primary school pupils ( $n = 434$ ) indicates that kids predominantly struggle to engage effectively with visuals due to deficiencies in attributes such as headline quality or factual inaccuracies.

Prakash, K. & Jegankumar, R. (2021). Health is commonly described as a state of complete physical, mental, and social well-being, rather than merely the absence of disease or disability, according to the World Health Organization (WHO). Nonetheless, youngsters below the age of five necessitate significantly greater attention. Ensuring the well-being of future generations necessitates a crucial objective: child health. In recent decades, the world has experienced significant progress in reducing child mortality and enhancing health outcomes. Conversely, a UNICEF estimate from 2019 indicates that 6.1 million children and young adults have died, predominantly from preventable causes—5.2 million of whom were new-borns. Twenty percent (25 million) of all annual global childbirths take place in India. 1.7 million of the roughly 3.5 million infants born preterm have congenital anomalies. Despite the expansion in health centers nationwide, India must reduce child mortality by enhancing the quality of treatment offered in these facilities. Moreover, to enhance the accessibility of the healthcare system, significantly more ambitious initiatives and resources must be directed towards remote tribal settlements, where 21% of all deliveries are recorded. This study employs geospatial technology to examine the interplay across state-level healthcare systems in India and ranks the states for urgent action plans to fulfill the goals of the National Health Policy. The study utilized a subset of data from the Rural Health Survey (RHS) and the Health Management Information System (HMIS) Annual Reports for 2019–2020.

Jain, A. et al. (2021). The well-being of India's youngsters has enhanced over the last three decades. Morbidity and anthropometric failure rates have reduced. What remains uncertain, however, is how those patterns have evolved when analyzed by socioeconomic position. This study analyses alterations in 11 child health variables relative to household wealth and maternal education from 1993 to 2021 to address this significant information deficiency. Such actions may result in policies that more effectively address the needs of the most vulnerable children. This repeated cross-sectional analysis utilized data from five iterations of India's National Family Health Survey conducted in 1993, 1999, 2006, 2016, and 2021. We examined mother-reported instances of acute respiratory illness and diarrhea, hemoglobin assessments for anemia, and height and weight evaluations for anthropometric failure. We analyzed the variations in prevalence rates of each outcome from 1993 to 2021, categorized by family wealth and maternal education. We conducted this investigation again for urban and rural groups. The socioeconomic gradient in eleven indices of child health stabilized between 1993 and 2021. This was mostly attributable to significant decreases in prevalence among children from the lowest socioeconomic strata. The most significant reductions for most outcomes transpired before 2016. As of 2021, outcome prevalence, excluding mild anemia, was higher among children from the lowest socioeconomic strata. Moreover, we demonstrate that the rise in the prevalence of stunting and wasting from 2016 to 2021 is predominantly attributed to an escalation in the severe manifestations of these conditions among children in the highest socioeconomic strata. This discovery highlights the significance of analyzing child health outcomes based on severity. Although there were significant decreases in the socioeconomic gradient across 11 measures of child health from 1993 to 2021, the incidence of adverse outcomes continued to be greatest among children in the lowest socioeconomic strata in most instances. Consequently, our findings underscore the necessity for sustained attention towards India's most vulnerable children.

Faka, A. (2020). This study presents a thorough methodology for evaluating and delineating the quality of a locality as a residential area, together with its quality of life (QoL). The development of composite criteria, utilizing geographic information systems and geographical attributes to assess quality of life, constituted the basis for the quality of life evaluation. The composite criterion encompasses the housing situation, infrastructure and services, and natural and social environment, as well as cultural and recreational amenities. Each criterion was evaluated based on a set of factors, with weights assigned according to the analytical hierarchy technique and the residents' preferences. To assess overall quality of life, the factors were weighted and integrated. The Municipality of Katerini, Greece, employed the methodology, resulting in QoL mapping that delineated the study area's zoning and identified high- and low-quality zones. Results indicate that three of the twenty-nine communities exhibiting optimal housing conditions, superior access to public services and infrastructure, and a high-quality natural environment achieved the highest overall quality of life (QoL) scores, while five isolated and mountainous communities garnered the lowest scores. The assessment of quality of life (QoL) can facilitate the formulation of decision-making strategies designed to improve living conditions, elevate QoL, and enhance human well-being.

Liou, L. et al. (2020). We evaluated district-level geographic patterns in precision-weighted prevalence and absolute wealth disparity regarding stunting, underweight, wasting, low birthweight, and anemia in children under five in India. Significant wealth discrepancies were observed in relation to anthropometric deficiencies, with considerable variation among states. We discovered statistically significant geographic patterns in wealth disparities between districts for all outcomes, which contrasted with the geospatial patterns of overall prevalence. We classified each district as a disparity, pitfall, intensity, or prosperity area based on its total burden and wealth disparity and emphasized the significance of incorporating these criteria for geographically targeted public health initiatives to enhance health equity.

Germain, N. et al. (2019). The use of child self-report and observer or proxy questionnaires has increased due to the need to understand the impact of disease and treatment on children's health-related quality of life (HRQoL). This research analyses the present condition of HRQoL measurement concerning children under five years old. Numerous HRQoL surveys are accessible for children and/or their proxies, and assessments and guidelines pertaining to pediatric HRQoL have been published. None, however, tackle the challenges of assessing children under five, for whom proxy methods are suitable. The cut-off age for self-report questionnaires varies significantly. Proxies should be employed for observable notions but not for concepts requiring interpretation, as per recommendations. Investigations of the aspects and concepts present in pediatric HRQoL questionnaires have been undertaken. Nonetheless, no HRQoL models have been specifically developed for children, and the heterogeneity in questionnaire variables underscores the absence of consensus regarding the definition of HRQoL in pediatric populations. It is essential to conduct research to establish theoretical models of health-related quality of life (HRQoL) specific to children at different developmental stages, as well as to evaluate and validate both novel and existing measures of pediatric HRQoL and their utilization in clinical practice and clinical trials.

Karvánková, P. et al. (2019). The concept of quality of life (QOL) is a multidisciplinary matter that can potentially fulfill the fundamental goals of geography instruction when integrated into modern classroom geography practices. It can enhance students' critical skills, underscore practical tasks, and facilitate geographical thinking. It can also facilitate schools' connection to the actual world. In the discipline of geography, quality of life (QOL) is not a separate thematic domain. This subject encompasses several thematic areas. This essay exemplifies the application of core skills as a developmental instrument to build a modern geography teaching technique. The pilot study utilized the QOL topic with 28 ninth-grade students at a Czech lower secondary school in Svatá Hora, Příbram, to validate the students' problem-solving capabilities. The majority of pupils demonstrated age-appropriate competencies, as indicated by the findings. Fewer than 5% of pupils failed to finish the assignments; however, more than 50% executed them creatively. Students can critically assess quality of life utilizing several sources, including statistical facts, personal perspectives and experiences, as well as the subjective views of others.

Ghosh, P. (2018). Children represent the future and are the most significant asset of both society and nation; their health status constitutes the riches of that nation. Consequently, to guarantee the advancement of a healthy nation, child health must be safeguarded. The primary objective of this study is to discover spatial disparities, variances, and patterns of various health hazards among children throughout different districts of West Bengal. This research utilizes data from the Fourth Round District Level Household Survey (DLHS-4). The filtered secondary data have been converted into a tertiary data collection, followed by numerous statistical analyses and cartographic methodologies utilizing Microsoft Excel 2013, IBM SPSS 23 software, and diverse mappings developed with Q-GIS 2.12. This study identifies health vulnerability based on three primary index parameters: hunger, morbidity, and vaccination gap. The districts deemed most vulnerable or moderately vulnerable in child health exhibit varying degrees of poverty across the three metrics. The government must implement sufficient steps to alleviate these hazards or health issues and to counteract their prevalence. Additionally, the general populace and parents in the research region must be cognizant of the causes and effects of malnutrition, morbidity, and vaccination.

Sivanna, G. (2018). In the demographic literature of the country, studies examining the complex relationship among female literacy, poverty, child malnutrition, and child mortality are scarce. The recent emphasis on Millennium Development Goals 4 (Child Survival) and 5 (Maternal Health) has prompted scholars to investigate whether disadvantaged geographic regions, characterized by low female literacy, poverty, inadequate safe delivery, or poor child nutrition, also faced heightened child mortality risks, or if spatial patterns delineated these issues. This research study rigorously examines these significant issues utilizing data from household surveys, including NFHS 1992-1993, NFHS 1998-1999, and DLHS 2002-2004.

Yourkavitch, J. et al. (2018). The disparity in access to high-quality healthcare impedes the attainment of the Millennium Development Goals. Interventions must target marginalized populations to achieve the Sustainable Development Goals. Areas with inadequate coverage compared to adjacent regions can be discerned by a detailed geographic unit analysis of health indicators. These evaluations seek to identify areas with inadequate coverage or significant need to

facilitate effective resource allocation, hence reducing inequities in child health both within and between countries. We computed estimates for six child health indicators across subnational regions utilizing data from the Demographic and Health Survey Programme conducted in 27 selected African countries between 2010 and 2014. We calculated Global Moran's I statistics and conducted a local indicator of geographic association analysis to provide a global layer illustrating geographical associations. We created maps to visualize spatial clusters and sub-national autocorrelation. All indicators exhibited a positive Global Moran's I statistic (range: 0.41 to 0.68), which was statistically significant ( $p < 0.05$ ). This indicates the presence of spatial autocorrelation across national boundaries and underscores the necessity of examining health indicators both within and among nations. Distinct patterns of substantial variation existed in neighboring subareas; the average intra-country divergence for each indicator exceeded 20 percentage points. Furthermore, clusters of transnational links were evident, facilitating the identification of hotspots and informing resource allocation to mitigate inequities in child health both between and within countries. This study demonstrates discrepancies in health indicators within neighbouring geographic regions, indicating the necessity for focused national, subnational, and regional interventions to improve health and reduce health disparities.

Raj, M. et al. (2017). There is a scarcity of information regarding the health-related quality of life (HRQOL) of Indian children. This study sought to establish a comprehensive HRQOL reference for children in the community aged 2 to 18. A cross-sectional survey was undertaken inside the community. A total of 719 children and adolescents aged 2 to 18 were enrolled using stratified random cluster sampling. A total of 40 clusters, each comprising 18 units, were selected for the investigation. Data included parent proxy reports and child self-reports from healthy youngsters and their parents or caregivers. Health-related quality of life (HRQOL) data were collected utilizing the Paediatric Quality of Life Inventory 4.0 (PedsQL4.0) Generic Core Scale. Parents and children aged 8 to 18 completed the questions independently. Parents assisted their children in completing surveys when the youngsters were aged five to seven. The mean HRQOL total scores for children aged 2 to 18, as reported by parents and self-reported by children, were  $90.10 \pm 9.50$  and  $87.50 \pm 11.10$ , respectively. Social functioning received the highest scores across all categories, whereas emotional functioning received the lowest scores. The mean HRQOL values for children aged 2–16 years in the current study considerably differed from those in the reference sample, with children reporting 87.39 versus 83.91 ( $P < 0.001$ ) and parent proxy reports indicating 90.03 versus 82.29 ( $P < 0.001$ ). A country-specific HRQOL reference for Indian children necessitates analogous studies across diverse regions of the country; the research provided reference values for HRQOL in healthy children and adolescents from Kerala, India, which appeared to diverge from the existing international reference.

Murgas, F. (2016). The geographical conception of quality of life relies on two assumptions. The initial assumption posits that quality of life encompasses two dimensions: subjective and objective. The subjective aspect is referred to as 'well-being,' whilst the objective aspect is termed 'quality of place.' The second premise acknowledges that quality of living inherently possesses a geographical dimension. The notion of quality of life is intrinsically associated with the idea of a good life; geographers have enhanced this notion by employing the term 'good location' to denote an

environment conducive to a good life. The quality of life for individuals regarding an optimal environment intersects with the societal quality of life. The geographical conceptualization of quality of life is utilized in the analysis of settlements in the city of Liberec.

Gayawan, E. et al. (2016). This study examines the enduring geographic disparities in new-born and child mortality, along with the extent to which different categories of risk factors elucidate the geographical differences in West African countries. To do this, we integrated data from the Demographic and Health Surveys of 10 nations and employed the spatial extension of the discrete-time survival model to examine the impact of variables on new-born and child mortality across various geographic areas. The inference was Bayesian, utilizing the computationally efficient MCMC technique. We identified divergent regional patterns in neonatal and infant mortality. A substantial percentage of the considerable range in crude rates for children under five can be elucidated when maternal status indicators and demographic data specific to the mother and child are considered. Aside from three contiguous regions of Liberia and Sierra Leone, there is minimal evidence of significant disparities in new-born mortality rates. The findings can facilitate the evidence-based allocation of scarce resources in West Africa, hence enhancing the likelihood of survival for early infants.

Lillemor, D. et al. (2015). The possible psychological and social impacts of untreated persistent malocclusions on the quality of life of children and adolescents. We conducted a systematic assessment of quantitative studies to identify evidence concerning the influence of malocclusions on oral health-related quality of life (OHRQOL) in children and adolescents. Using specified indexing terms, five databases (MEDLINE via PubMed, EMBASE, PsycINFO, CINAHL, and the Cochrane Library) were queried. The following inclusion criteria were implemented: a study population comprising children or adolescents; participants in good health without syndromes such as cleft lip/palate or severe illnesses; absence of prior or ongoing orthodontic treatment among participants; emphasis on malocclusions and quality of life; controlled or sub grouped based on the presence or absence of malocclusions; assessment of malocclusions and/or orthodontic treatment needs conducted by professionals utilizing standardized measures; self-reported oral health-related quality of life (OHRQOL) evaluated through validated questionnaire instruments; and full-text articles published in English or Scandinavian languages. The GRADE criteria were employed to evaluate the quality of evidence as high, moderate, or low. A total of 1142 titles and abstracts were identified in the search. Seventy articles were gathered in full text according to established criteria; twenty-two satisfied the inclusion requirements. Six studies were deemed appropriate for complete inclusion following data extraction and analysis. All six studies employed a cross-sectional design; four provided high-quality evidence, and the remaining two offered intermediate-quality evidence. Four high-quality studies and two moderate-quality studies indicate that increased demand for orthodontic treatment adversely affects OHRQOL. Four high-quality studies demonstrated that malocclusions adversely affect OHRQOL, particularly for emotional and social well-being, thereby establishing the scientific evidence as strong.

Bell, N. et al. (2014). In the initial year post-injury, alterations in health-related quality of life (HRQoL) are monitored with increased frequency. Spatial cluster analysis, utilized to assess variations in HRQoL, may identify geographic areas where injury survivors exhibit similar outcomes. This may result in enhancements in the implementation of interventions or the evaluation

of their outcomes. We conducted two separate geographic cluster analyses of very low, low, high, and very high HRQoL ratings utilizing a spatial scan statistic designed for ordinal data. The HRQoL assessments of children treated for injuries at British Columbia Children's Hospital and discharged to the Vancouver Metropolitan Area were the foundation of our study. Four temporal intervals were employed to examine spatial clusters: baseline (derived from pre-injury health reported before hospital discharge), and one, four, and twelve months' post-discharge. The PedsQL™ outcome scale was employed to assess the outcome data. The PedsQL™ scores were categorized into quartiles, resulting in the identification of very low, low, high, and very high HRQoL outcome values. In the preliminary assessment, all scores were examined for clustering without distinguishing whether the response originated from a follow-up or baseline assessment. To ascertain whether HRQoL responses could be identified at specific time points, we developed a space-time model for the secondary analysis. All individuals exhibited global and temporally specific regional clustering of response values. Five significant clusters of "very low" PedsQL physical and mental health outcomes were identified within geographic areas of between 1 and 21km in the purely spatial analysis. Substantial clusters of "very low" and "low" outcomes were identified between survey months within zones measuring three to five kilometers, as per a space-time analysis of the results. Monitoring the health of patient's post-injury is essential for planning and implementing therapies. A prevalent theme in the research is that future preventative efforts can benefit from identifying individuals most likely to have enduring problems after an accident, hence directing resources to those in greatest need. A potential application of spatial scan statistics is to identify clusters of suboptimal recovery outcomes. Outcomes categorized as "potentially low" can be mapped to identify groups at risk of deteriorating recovery status.

Jozefiak, T. et al. (2008). There is much evidence indicating a discrepancy between the emotional and behavioral concerns reported by children and those reported by parents on their behalf. Currently, there is limited understanding of the factors affecting the variability in the quality of life (QoL) of children, as reported by both the kid and the parent through proxy. The study aimed to assess the discrepancies between parent and child proxy reports, as measured by two separate QoL questionnaires. A representative sample of 1997 Norwegian schoolchildren, aged 8–16 years, and their parents were examined using the 'Kinder Lebensqualität Fragebogen' (KINDL) and the Inventory of Life Quality (ILC). The Pearson product-moment correlation coefficient was employed to calculate correlations and to compare reports from parents and children utilizing the t-test. The assessment for test-retest reliability was conducted utilizing intraclass correlation coefficients, while internal consistency was evaluated by Cronbach's alpha. The translated QoL measures had these two psychometric characteristics. In the present sample of the general population, parents indicated a superior quality of life for their children compared to the children's own assessments. The proxy report indicated a low to moderate concordance between the child and parent. Parents reached a consensus on a moderate assessment of their child's quality of life. Gender did not substantially influence concordance in child quality of life assessments between parents and children. Community population surveys may employ both the parent and child versions of the Norwegian translations of the KINDL and ILC; however, it is recommended that only the KINDL total QoL scale or the ILC be used for self-reporting by children aged 9 to 10.

## CONCLUSION

The primary determinants affecting quality of life include environmental factors connected to access to natural settings, such as parks and green spaces, which are associated with children's health-related quality of life, particularly in urban and suburban regions. The presence of educational institutions and infrastructural support in a region affects the socio-economic dimensions of a child's existence, hence impacting their quality of life. The geographic concentration of issues such as poverty and disadvantage illustrates area impacts that can profoundly influence child health, including malnutrition. The necessity for geographical analysis encompasses comprehending the spatial distribution of risk factors and the disparate quality of life across various geographic regions, which can guide targeted policies and interventions aimed at mitigating inequities and enhancing outcomes for children. Geographical analysis is crucial for understanding how location affects children's experiences and for formulating complete plans that account for both individual and environmental elements.

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