Assessing the Impact of Poor Access to Health Facilities on Social Exclusion in Children: A Case Study of Peshawar, Pakistan

Asad Ullah[*], Rais Gul[†]

Abstract

Focus of this research paper is on assessing child social exclusion due to insufficient access to health facilities in Peshawar-Pakistan. A systematic sampling technique was adopted to select and interview 500 children (age group 12–18 years) from seven shopping streets and seven high schools of the District Peshawar. Dichotomous Likert scale was used as measure access to health facilities and social exclusion in children. Chi-square and Kendall's Tau-b tests were applied to ascertain the association of variables. Social exclusion in children was significantly and negatively associated with parents taking proper care of children health (P=0.000; & T^b= -0.242), availability of qualified doctors in the area (0.000; &T^b= -0.211), visiting hospital/doctor in minor diseases (0.000; & T^b= -0.226), and perceiving one's self in good health (0.002; & T^b= -0.137). Conversely, social exclusion in children was significantly and positively associated with long time illness (0.000; & T^b= 0.308), family member(s) suffering from mental illness (0.000; & T^b= 0.440) and/or physical disabilities (0.000; & T^b= 0.417) and dissatisfaction from available health facilities (0.001; & T^b= 0.142). Moreover, social exclusion in children due to their poor state of health and wellbeing was spurious in Muslim and non-Muslim children. Awareness, motivation, mobilization, and sensitization of community and family members for timely consultation with doctors and proper treatment of diseases in addition to strengthening the heath system to prevent diseases, and provision of medical aid, were suggested as some of the policy recommendations in the light of the study.

Keywords: social exclusion, children, health status, religious affiliation

Introduction

All societies have their predetermined goals. Productive involvement of societal members is necessary to achieve these goals effectively. Some time, due to improper functioning of the social institutions, the individuals and groups are alienated from collective societal goals and result into their social exclusion (Bejaković, et al., 2021; Department of Social Security, 1999; & Levitas, 1996). It's the malfunctioning social structures and processes that causes social exclusion and increase their difficulties. The social exclusion as a phenomenon has two aspects i.e., inability to participate (internal) and denial to participate

[*] Associate Professor, Department of Rural Sociology, The University of Agriculture, Peshawar.

[†] Assistant Professor, Department of Sociology, Islamia College University, Peshawar.

(external) (O'Donnell, et al., 2022; Moffat and Glasgow, 2009; & Atkinson et al., 2002; Howarth et al., 1998).

Social exclusion is visible in all age groups, therefore, it is separately studied in different age categories (González et al., 2023; Levitas et al. 2007; DSS, 1999; & Gordon et al., 2000). Studying social exclusion in children is of great significance for numerous motives. Primarily, most social exclusion surveys ignore children, particularly those that are under care, disable, vagrant or from deprived minority or ethnic group. Secondly, most young age children are exposed to disadvantages and poor living environment due to their economic dependence, gender and poverty (González et al., 2023; Levitas et al. 2007; Asad and Mussawar, 2014a; b; Burchardt et al., 2002; & Moffat and Glasgow, 2009). Such children remain hidden from the institutions that provide basic services to masses (González et al., 2023; Asad et al., 2014; & Levitas et al. 2007).

It is quite difficult to define and rank the level of social exclusion in children due to lacking definitional precision. Consequently, translating social exclusion-based approaches into policies is difficult. An easy way out in this situation is referring to multiple domains and dimensions that lead to social exclusion in children, and its negative consequences on child's wellbeing, quality of life and future life chances (Almeida et al., 2021; Levitas et al., 2007; Asad et al. 2015; & Asad, 2017).

It is generally accepted that children are disadvantaged because of disability and poor health state that are the strong correlates of social exclusion (Almeida et al., 2021; Nevile, 2005; and Evans, 2004). Moreover, children living in areas with easy and adequate access to health facilities develop greater resilience and positive mental health (Bourke, et al., 2009; Morrow, 2001b; and Oliver et al., 2006). However, those that remain victim of poor health for a longer time, during their childhood, develop the feelings of isolation, which continue during their adult life (González et al., 2023; Burchardt et al., 2002; Asad and Mussawar, 2017).

Effects of deprivations are specifically harsh on children from poor segment of society (Rosenbaum, 1992; Asad and Mussawar, 2015 and 2016). Like resilience in developmental outcome, child health varies unfavorably with diminished income (Vaillancourt, et al., 2021; Federal Interagency Forum on Child and Family Statistics, 1997; Asad and Mussawar, 2017). Improvement in child health status reduces the likelihood of their social exclusion. Conversely, their permanent illness is a major indicator of enhances likelihood of child's isolation and social exclusion (Vaillancour, et al., 2021; Asad and Mussawar, 2014a and b).

The instances of social exclusion in children are not uniform. Religious, racial and ethnic minority children are specifically deprived of

educational, health and recreational facilities. Socio-cultural and religious identities of such children disassociated them from conventional school and bound them to education at their community schools. School dropout of these children is vivid. Similarly, their cultural and linguistic differences hindered their access to health services. The predominant relation with one's own religious group encouraged the minority children to participate in group leisure activities of one's own group (Asad, 2016).

Review of methodological procedures applied for social exclusion research in children unveil that most such researches focused incidences and distribution of social exclusion using inferential statistics. These researches, mostly, related social exclusion with socio-demographic variables like gender, age, family type, education and employment etc. at bi variate level using non parametric measures and logistic regression models to estimate effect, size and statistical significance of relationships reliably. In some researches multivariate techniques (logistic regression and cluster analyses) were employed for estimation of multivariate relation among variables (González et al., 2023; UNICEF, 2011; UNESCO, 2011; Saunders, 2007; Fahmy, 2009; Levitas et al., 2007; Bottrell, 2006). The above measures and statistical tools of social exclusion were helpful in devising methodology for current study.

Synthesis of existing research review of literature show that social exclusion studies in children in Pakistan are rare. Moreover, most of such studies on international level are criticized for its proxy information collected from parent and teachers of children.

Several research studies have been conducted on various aspects of social exclusion during various surveys. However, this study is the first ever attempt to study social exclusion in children at Peshawar. There is high need to objectively validate that how the children see their societal and support networks around them, and that whether they are involved in such networks up to their satisfaction or not (Vaillancour, et al., 2021; & Prout et al., 2006).

In this purview, this research study is designed with the objective to assess social exclusion in children due to their poor access to health facilities in Peshawar-Pakistan. In addition, variation in extent of social exclusion in children based on their gender, religious affiliation, family type and subjective poverty were also focused in this study.

Material and Methods

This research study is a cross sectional research carried out in Peshawar District during the year 2012-13. Conceptually, this research comprises of one independent variable (State of health and wellbeing,

Table-1), one dependent variable (Social Exclusion) and four background variable (gender, religious affiliation, subjective poverty and Family type).

Table-1

Conceptual Framework

Background Variables	Independent variable	Dependent variable
Gender Family type Subjective poverty Religious affiliation	State of health and wellbeing	Social Exclusion

Data was collected from 500 children (aged between 12 to 18 years) (Sekaran, 2003), using multistage stratified random sampling technique. Stage 1: Seven schools and seven shopping streets were selected from the registered 461 high schools and 15 shopping streets in Peshawar using simple random sampling technique. Sampling frame for respondents enrolled in schools was prepared from the list of enrolled students in selected schools. Sampling frame for children working in shopping streets was based on a pilot survey conducted in selected shopping streets.

Stage 2: The required sample size was proportionally allocated to selected schools and shopping streets. A systematic sampling technique was applied to select respondents from selected school and shopping street.

Data was collected on a comprehensive and pretested interview covering study variables given in conceptual framework (Table-1). The Interview Schedule was translated into Urdu and Pushto (Kothari, 2004).

For data collection a team of investigators, led by the researcher, was hired and trained. The sampled children were directly interviewed during data collection. APA norms for research were followed for interviewing children and handling data. The technical and ethical grounds of the study were reviewed and approved by the Institutional Board of Studies.

Measurement of Social Exclusion

Relativity, agency and dynamics of the social exclusion process provided basis for measurement of social exclusion in current study. Existing literature, expert views and personal experience of researcher were used to pool indicators of social exclusion in children. Members of departmental board of studies vetted and recommended nine indicators/attributes (both positive and negative) for social exclusion measurement on a dichotomous Likert scale. These included, non-participation in social activities out of fear of failure to meet people's expectations, feeling of disrespect from others, feeling of representation

from low caste, poverty, deprivation, child labor, poor aspirations for future life, left out by people due to unwanted personality and poor access to contacts. The responses were obtained on a dichotomous Likert scale such that "No" (inclusion on particular attribute) was given the value of 0 and "Yes" (Social exclusion) was given the value of 1. A child was considered as socially excluded if he was excluded on five or more attributes of social exclusion.

Measurement of other Study Variables

Attitudinal statements from existing literature were pooled to measure the state of health and wellbeing. These statements were vetted by panel of experts. Twelve attitudinal statements were finalized to measure the variable on a dichotomous Likert scale. The background variables (gender, Perception of subjective poverty, Sufficiency of Family Income and Religious Affiliation were measured by using one item each. A child was considered as deprived on a particular scale of variable measurement if he/she had negative attitudinal responses towards half or more factors in that scale (Nachmias, 1992).

Indexation and Reliability Analysis

Attitudinal statements of both independent and dependent variables were combined (indexed) to measure a single variable. Before indexation of variables, the internal consistency of the scale items was determined by applying Cronbach's alpha reliability test. The study variables showed Cronbach's alpha coefficient value of more than 0.7, hence, indexed for their use in bi-variate and multi variate analyses (Nachmias, 1992).

Data Analysis

Descriptive statistics (frequencies and percentages) were applied at univariate level, whereas, inferential statistics (chi-square, Fisher Exact, and Kendall's Tau b tests) were used at bivariate and multivariate levels. The dependent variable was indexed and cross tabbed with attitudinal statements of independent variable (health and wellbeing) at bi variate level. At multivariate level, both social exclusion and health and wellbeing were indexed and cross tabulated while controlling gender, religion, family type and perceived poverty to test variation brought in the association among independent and dependent variables is based on control variables or not. Chi-square value was calculated using equation below (Tai, 1978)

$$\chi^2 = \sum_{i=1}^{r} \cdot \sum_{j=1}^{c} \cdot \frac{(Oij - eij)^2}{eij}$$

Where

$\chi 2$ = Chi-Square

Oij = Observed frequencies in ith row and jth column

eij = expect frequencies corresponding to ith row and jth column

r = number of rows

c = number of columns

df = (r-1) (c-1)

In case of violation of chi-square test assumptions, Fisher Exact Test was applied using equation below (Nachmias, 1992);

$$\text{Fisher exect test} = \frac{(a+b)!\,(c+d)!\,(a+c)!\,(b+d)!}{N!\;a!\,b!\,c!\,d!}$$

Where a, b, c and d were the observed numbers in four cells of contingency Table and "n" the total number of observations.

Kendall's Tau-b was used measure for calculating association for contingency tables (Nachmias, 1992).

$$T^b = \frac{Ns - Nd}{\sqrt{(Ns + Nd + Tx)(Ns + Nd + Tx)}}$$

Where;

Tb = Kendall's Tau-b

Ns = same order pairs

Nd = different order pairs

Tx = pairs tied on X

All the above tests were applied at 95% confidence interval and $p \leq 0.05$ significance level.

Limitations of the Study

Due to prevailing cultural norms (the female in the study area are discouraged to contact males) the female participation in the current study was relatively low. Similarly, due to insufficient accessibility, the representation of working girls in the study was negligible.

Results and Discussions

Health and well-being

Health and wellbeing are the major indicators where social exclusion is directly dependent upon it. Health facilities necessitate the provision of ideal like food intake essential for a human body, exposure to diseases, access to medical facilities, living in healthy environment and family history of diseases. Health related wellbeing include all measures from government and family to its members to enjoying good health.

Perception of the respondents regarding state of their health and wellbeing is given in Table 2.

It was found that respondents were satisfied from the proper care by the parents for their kid's health (91%, Table-2), vaccination for controlling of chronic diseases was 88.2%, coordination with dental doctor was 86.6% and the chances of obesity was highly in acceptable range (15%) respectively. Parent's role was very much clear in respect to the various provisions related to basic health activities. It could be the awareness of parents over their role performance as per social expectations. Moreover, the availability and provision of these services could also be attributed to an efficient system of trickling such services on part of the state, besides open competition in private sector for provision of health facilities. International pressure for elimination of some chronic and fatal diseases might be the other reason pushing for provision of health facilities and related awareness to masses. Acquiring of these services further enforces the high level of awareness amongst the masses for the containment of these diseases. It has been found that the provision of services like doctor, chemist for the purpose of providing sufficient health facilities to children leads to the good health and high participated profile in social life. Parental illness and unawareness regarding the availing basic amenities of health life drastically reduces the chances of social inclusion of children (Fisher and Bramley, 2006; and Adelman and Middleton, 2003). Negative health effects are related to poverty, low level of immunization and high level of exposure to chronic condition of children (Federal Interagency Forum on Child and Family Statistics, 1997).

Table-2

Frequency Distribution and Proportion of Respondents Showing Variable Responses to their Health and Well-Being

Attribute	No	Yes	Total
Your parents take proper care of your health	45 (9.0)	455 (91.0)	500 (100)
Have you been vaccinated of chronic diseases?	59 (11.8)	441 (88.2)	500 (100)
Condition of your dental health is good	67 (13.4)	433 (86.6)	500 (100)
Are you a victim of obesity?	425 (85.0)	75 (15.0)	500 (100)

Have you remained ill for long time?	326 (65.2)	174 (34.8)	500 (100)
Does any of your family member/parent suffer from mental illness?	333 (66.6)	167 (33.4)	500 (100)
Do any of your family members suffer from physical disability?	291 (58.2)	209 (41.8)	500 (100)
Qualified doctors are available in your area	160 (32.0)	340 (68.0)	500 (100)
Do you have access to quality medicine?	132 (26.4)	368 (73.6)	500 (100)
Do You visit hospital/doctor in minor diseases?	333 (66.6)	167 (33.4)	500 (100)
Do you feel you have good health?	65 (13.0)	435 (87.0)	500 (100)
You are not satisfied with health facilities available in your area?	165 (33.0)	335 (67.0)	500 (100)

Values in table present frequency while values in parenthesis represent percentage proportion of respondents

Moreover, it was found that 34.8% respondents remained ill for long period, any of family member/parent suffered from mental illness (33.4%), physical disabilities among family members (41.8%), availability of qualified doctors in the area (68%), access to quality medicine (73.6%), visit to hospital/doctor (33.4%), feelings of good health (87%) and not satisfaction with health facilities available was 67% respectively. The data reveal a high awareness of the respondents regarding different dimensions of the health life. A good sum of people had access to health facilities with strong support from families; however, the existence of physical or mental disability could be counted as human personal profile as the nature of diseases was not communicable in nature. The availability of qualified doctors with the abundance of medicine had contributed to the emergence of good health conditions, which was also reflected from their expression of satisfaction. Moreover, child disadvantage could be related to disabilities; however, no sound data is around to establish a strong relationship of disability with poor family (Evans, 2004). The participatory role of young people and children in their community is reflective of good health and wellbeing. Moreover, good mental health has also been connected to the developing resilience of the

people experiencing more control in autonomy at community level. However, feelings of isolation and poor health coexist and leading to the isolation of person in the childhood with association to poverty (Morrow, 2001a; Oliver et al., 2006; Bourke et al., 2009; Wyn, 2009a and b; and Burchardt et al., 2002)

Association between Health and Well-Being and Social Exclusion in Children

Health is the major development consideration of Government of Pakistan. Being signatory to millennium development goals, the government is obliged to work towards eradication of poverty, hunger, illiteracy, diseases, gender-based discriminations and environmental deterioration. Importance of health is made evident from the fact that three of the eight-millennium development goals are related to heath. Improper consideration to health issue is found linked to low life expectancy, child mortality, malnutrition and sanitary problems. The situation is worsened when there is low than required number of doctors and poor medical facilities. The vicious circle of poverty and poor medical facilities trap deprived children in profuse diseases and undermine their ability to work. Some attributes were designed and put into test to explore the possible relationship of health and wellbeing with social exclusion as given in Table 3 and explained below;

From the group of children that are not properly taken care of by their parent for their health, 82.2% were socially excluded, compared to 40.2% of those that do receive care. The association of parents take proper care of child health was found highly significant (p=0.000) with social exclusion but negative in direction (T^b= -0.242). Parental care is one of the basic responsibilities at the family level with strong social moral and religious endorsements. A person from anywhere and belonging to any school of thought would establish the family life under the same philosophy. The obvious reasons could be the process of socialization where intimate relationships are defined and demarcated with status and roles. The family system was found coherent in the study area owning to the same analogy. However, most of the care for the excluded children was not being met due to the parent's inability of either poverty or extreme segregation from the mainstream activities. Wellbeing is directly related to sound economic background and good quality health along with proper education and housing facilities (DSS, 1999). Moreover, extreme poverty could be one of the developmental outcomes which stakes the societal order into fragmentation and the researchers needs to cover this particular lacuna in the light of development activity within the context of community and family respectively (Ashworth et al., 1994a and b).

Underutilization of health-related facilities disproportionately affect the poor children with low birth weight and infant mortality (Rosenbaum, 1992).

From the groups of children that are not vaccinated, 40.7% were socially excluded, compared to 44.4% of those that were vaccinated. Association of being vaccinated for chronic diseases was found non-significant and mild positive (T^b= 0.024) with social exclusion. Child health and wellbeing is directly associated to smooth access to health facilities and care (Rosenbaum, 1992). Health facilities included the vaccination against chronic diseases, which is often launched by the incumbent state. However, the study has revealed a bleak picture of vaccination against the chronic diseases in the universe. It could be linked to the poor vaccination programs launched on part of the government by taking the local community along, which could be an attributing factor to the social exclusion of the respondents in this vital activity. Furthermore, for those that are not satisfied with their dental health, 40.3% were socially excluded, compared to 44.6% of those satisfied of their dental health. Association of condition of dental health was also found non-significant and mild positive (T^b= 0.029) with social exclusion. It could be emanated from the result that the dentistry services in the area had a poor profile with almost nonexistence and people in the area had little awareness about it. The apparent reason of lack for such facilities was perhaps the high cost of this treatment. Moreover, little hygiene awareness and importance of dental health in the purview of its contribution to normal physique was lacking along with existence of state of deprivation. Moreover, spiritual treatment was found to be preferred over the medical treatment as of ancestral practices. Saunders (2007) has also reported the parent's inability in providing regular dental checkup to their children because of the extreme state of deprivation and little participation in social relations. Moreover, lacking of self-help activities at the community level was another hurdle in access to these services. On the other hand, rich were found to have a normal inclusion in the society due to their access to such services.

In continuation to the earlier results, for those that are not victims of obesity, 43.3% were socially excluded, compared to 48% obesity victims. A non-significant but mild positive (T^b= 0.034) was disclosed between being victim of obesity and social exclusion. Socially excluded persons, as indicated from the above results had not a smooth access to the attainment of normal diet enriched with basic calories as required for a normal body on the daily basis. The obvious reasons could be the unhealthy dietary intake by children, poverty profile and physical isolation on ethnic and other social considerations. These results are in line to the

Willitts (2006) findings that all groups of children with variation in age are suffered from some of the indicators of income poverty, which included low income and material deprivation with unequal opportunity to have access to the resources. In addition, the quality of life is one of the big domain of health and wellbeing have been severely affected by poverty and social exclusion with special reference to children suffering from low birth weights, infant mortality and dental health problems (Barnes et al., 2006). For those that do not remain ill for long period, 32.8% were socially excluded, compared to 64.9% of those that remained ill for long period. Association of remaining ill for long period was found highly significant and moderate positive ($p=0.000$, $T^b= 0.308$) with social exclusion. The existence of a number of diseases could be resultant factor of irregular vaccination programs with lesser level of participation from the community. Moreover, it also indicated the nonexistence of any hygiene-oriented package in the area to save the children from diseases. Hunger and malnutrition, ill health and lack of access to services are some of the major factors of social exclusion with social characteristics like nonparticipation in decision making, social and cultural activities (UN, 1948).

Notwithstanding, for those whose family member(s) are not suffering from mental illness, 28.5% were socially excluded, compared to 74.9% of those whose family member(s) suffered from mental illness. A highly significant and moderate positive ($p=0.000$, and $T^b= 0.440$) relationship existed between any of family member suffered from mental illness with social exclusion. Like the earlier results pertaining to physical illness and mental disorder were also found prevalent in the study area. The probable factors associated to this effect could be the extreme sense of deprivation in the shape of non-access to resources and services and a subsequent marginalized status either due to belonging to minority background or broken structure of a family. These findings are in line to the conclusion of (Stanley et al., 2007; and Adelman and Medilton, 2003) that social exclusion amongst children is a resultant factor of low-income unemployment, parental mental health and disability with family breakdown and biased community scenario.

Table 3

Association between Health/Well-Being and Social Exclusion in Children

Health and well-being	Attitude	Social Exclusion			Statistics χ^2 (P-Value)
		Socially Included	Socially Excluded	Total	

					T^b
Your parents take proper care of your health	No	8 (17.8)	37 (82.2)	45 (100)	$\chi^2 = 29.32$ (0.000)
	Yes	272 (59.8)	183 (40.2)	455 (100)	*T^b= -0.242*
Have you been vaccinated of chronic diseases?	No	35 (59.3)	24 (40.7)	59 (100)	$\chi^2 = 0.300$ (0.584)
	Yes	245 (55.6)	196 (44.4)	441 (100)	*T^b= 0.024*
Condition of your dental health is good	No	40 (59.7)	27 (40.3)	67 (100)	$\chi^2 = 0.43$ (0.512)
	Yes	240 (55.4)	193 (44.6)	433 (100)	*T^b= 0.029*
Are you a victim of obesity?	No	241 (56.7)	184 (43.3)	425 (100)	$\chi^2 = 0.573$ (0.449)
	Yes	39 (52)	36 (48)	75 (100)	*T^b= 0.034*
Have you remained ill for long time?	No	219 (67.2)	107 (32.8)	326 (100)	$\chi^2 = 47.5$ (0.000)
	Yes	61 (35.1)	113 (64.9)	174 (100)	*T^b= 0.308*
Does any of your family member/parent suffer from mental illness?	No	238 (71.5)	95 (28.5)	333 (100)	$\chi^2 = 96.85$ (0.000)
	Yes	42 (25.1)	125 (74.9)	167 (100)	*T^b= 0.440*
Do any of your family members suffer from physical disability?	No	214 (73.5)	77 (26.5)	291 (100)	$\chi^2 = 86.91$ (0.000)
	Yes	66 (31.6)	143 (68.4)	209 (100)	*T^b= 0.417*
Qualified doctors are available in your area	No	114 (71.2)	46 (28.8)	160 (100)	$\chi^2 = 22.20$ (0.000)
	Yes	166 (48.8)	174 (51.2)	340 (100)	*T^b= 0.211*
Do you have access to quality medicine?	No	70 (53)	62 (47)	132 (100)	$\chi^2 = 0.642$ (0.423)
	Yes	210 (57.1)	158 (42.9)	368 (100)	*T^b= -0.036*
Do you feel you have good health?	No	25 (38.5)	40 (61.5)	65 (100)	$\chi^2 = 9.32$ (0.002)
	Yes	255 (58.6)	180 (41.4)	435 (100)	*T^b= -0.137*
Do You visit hospital/doctor in minor diseases?	No	160 (48)	173 (52)	333 (100)	$\chi^2 = 25.58$ (0.000)
	Yes	120 (71.9)	47 (28.1)	167 (100)	*T^b= -0.226*
You are not satisfied with health facilities	No	109 (66.1)	56 (33.9)	165 (100)	$\chi^2 = 10.11$ (0.001)
	Yes	171 (51)	164 (49)	335 (100)	

available in your area?	*T^b= 0.142*

Values in table present frequency while values in parenthesis represent percentage proportion of respondents

Notwithstanding, for those whose family member(s) are not suffering from physical disability, 26.5% were socially excluded, compared to 68.4% of those whose family member(s) suffered from physical disability. Association of physical disability of a family member was found highly significant and moderate positive with social exclusion (p=0.000, and T^b= 0.417). Severe diseases could become fetal, due to the non-availability of remedial services thus enhances the chances of physical disabilities. The agonies of these disabled persons usually lead to the multiplication of the liabilities of these excluded persons. Family and parental factors are some of the associated outcomes of social exclusion if particular family suffered from prevalence of unemployment, low income or disability through any of its member allied with breakdown of the family (Stanley et al., 2007; and Adelman and Medilton, 2003).

Likewise, for those children to whom qualified doctors are not available, 28.8% were socially excluded, compared to 51.2% having access to doctor. Association of availability of qualified doctor was found highly significant and mild positive (p=0.000, and T^b= 0.211) with social exclusion. Access to services does not mean the availability of services around, rather the participation into these services is meaningful for the persons belonging to any particular situation. The inference has depicted the availability of the qualified doctors in the area either could be on routine or visiting basis. However, this availability of services was seldom utilized by the locals either due to their low economic profile with inability to afford the cost of treatment or so much excluded that resorted on using their own domestic recipes as curing instrument rather to go for sophisticated medication. Such type of practices and thinking impede the process of social inclusion for the locals. Children care at the family level has a great link to income and access to essential facilities like play and proper meal etc. this situation is usually interrupted due to persons belonging to low ethnic background or form religious minorities. These impediments include little access to qualified doctors and super markets etc. which is one of the constraints to children denying them to participate in productive social life (Fisher and Bramley, 2006). In continuation to aforementioned result, for those that do not have access to quality medicine, 47% were socially excluded, compared to 42.9% having access to medicine. Association of access to quality medicine was found non-significant and negative (T^b= -0.036). It could be a supporting factor to

above findings which has displayed a dismal picture of existence of physical and mental illness amongst the excluded persons. Moreover, the availability of doctor was although in existence but his services were seldom utilized. The non-availability of quality medicine could be another catalyst towards the springing of diseases as of its ineffectiveness due to varying nature. Poverty works as an imbalance between people needs and access to resources. Material needs deprivation mean low standard of life (Spicker, 2007) which includes food housing and medical care. Moreover, medical care along with access to services was found to be restricted due to lack of purchasing power of the people for the goods and services (Kanbur and Squire, 2002). However, for those children who do not feel themselves in state of good health, 61.5% were socially excluded, compared to 41.4% who were in state of good health. The association of feeling one's self in good health was found significant (p=0.002) but negative (T^b= -0.137). Good health can be imagined as an outcome of access to good food and seldom suffering from diseases. However, the prevalence of such situation for a longer period was found in vain in the study area. The main probable could be their low social stature based on exclusion and non-access to material resources due to poverty. High household income could mitigate the sense of deprivation arisen out of non-access to essential facilities like proper meal participation in youth club activities etc. (Fisher and Bramley, 2006).

Like the above results, for those who do not visit hospital/doctor in minor diseases, 52% were socially excluded, compared to 28.1% that do visit doctor. The association of visiting hospitals/doctors in minor diseases and social exclusion was found highly significant and negative in direction (p=0.000, and T^b= -0.226). It could be deduced from the findings that availability of facilities like hospitals and doctors was around. People had a faith in services provided by these sources but access to these services was restricted to a negligible extent due to extreme exclusion based on poverty and resource deprivation. These findings are in support to the Attree (2004) conclusions that children in poverty face practical and material constraints in the way of their social participation.

Like the above results, for those children who were satisfied from overall health facilities, 33.9% were socially excluded, compared to 49% that are not satisfied from health facilities. Association of satisfaction with regard to availability of health facilities was found significant and positive with social exclusion (p=0.001, and T^b= 0.142). The provision of services pertaining to health was in conformity to people's needs. People had a specific level of satisfaction to it also. Moreover, the excluded persons seldom enjoyed accesses to this vary facility in hour of demand. It could be deducted that frequent access to health facilities might reduce the

chances of social exclusion in health. Access to services by the young adults is much wider in education as compared to health sector (Howarth et al., 1998). Mental health services, if not taken properly, could obstruct the youngster's access to the participation and thus lead to the high chances of exclusion (British Medical Association, 2006). Availability of services like doctor, chemist and super market are some of the key factors of social inclusion. Obstructing these means restricting the chances of participation in the productive social life, that leads to the emanating social exclusion (Fisher and Bramley, 2006).

Association between State of Health and Wellbeing and Social Exclusion

In the table 4, for those that have poor state of health, 66.1% were socially excluded, compared to 49.7% of those that do have good health state. Association between state of health and wellbeing and social exclusion in children was highly significant and positive (p=0.000, and T^b = 0.161). This probably is due to the reason that state of health and wellbeing is important contributor in determining social exclusion in children and most of children suffering from poor state of health and wellbeing were more prone to social exclusion. Wellbeing is directly related to sound economic background and good quality health along with proper education and housing facilities (DSS, 1999). Likewise, underutilization of health-related facilities disproportionately affects the poor children with low birth weight and infant mortality (Rosenbaum, 1992).

Table 4

Association between State of Health and Wellbeing and Social Exclusion

State of health and wellbeing	Social Exclusion			Statistics χ^2 (P-Value) T^b
	Socially Excluded	Socially included	Total	
Poor health	127 (66.1)	65 (33.9)	192 (100)	χ^2 = 13.02 (0.000) T^b = 0.161
Good health	153 (49.7)	155 (50.3)	308 (100)	
Total	280 (56)	220 (44)	500 (100)	

Values in table present frequency while values in parenthesis represent percentage proportion of respondents

Association between State of Health and Wellbeing and Social Exclusion in Children (Controlling Gender of the Respondents)

In the table 5, for those male respondents that have poor state of health, 69.8% were socially excluded, compared to 55.4% of those that have good state of health. Likewise, for those female respondents that have poor state of health, 48.5% were socially excluded, compared to 24.6% of those that have good state of health. A positive (T^b=0.144) and significant (p=0.004) relationship in male was observed between state of health/wellbeing and social exclusion in children. In female this relationship in aforementioned variables was significant (p=0.020) and positive (T^b=0.245). The effects of state of health on social exclusion in boys and girls were almost identical as evident from their significance and Kendall's Tau-b coefficient value. Therefore, gender as a control variable did not explain association between above-mentioned variables. It is conclusive from present findings that although social inclusion of boys due to their state of health was slightly higher in proportion than girls still health and wellbeing is a universal factor in influencing social exclusion in children irrespective of gender considerations. Poor behavioral outcomes and health are directly related to least caring attitudes on part of the person (Levitas et al., 2007). Moreover, long standing illnesses is an attributing factor of social exclusion. Low income is another key indicator of social exclusion with poor policies of looking for maximum participation. In addition, poor health and feeling of isolation drastically affect the childhood and adulthood as well (Nevile, 2005; and Burchardt et al., 2002).

Table 5
Association between state of health and wellbeing and social exclusion in children (controlling gender of the respondents)

Gender	State of health and wellbeing	Social Exclusion			Statistics
		Socially Excluded	Socially included	Total	χ^2 (P-Value) T^b
Male	Poor health	111 (69.8)	48 (30.2)	159 (100)	χ^2 = 8.52 (0.004)
	Good health	139 (55.4)	112 (44.6)	251 (100)	T^b = 0.144
	Total	250 (61)	160 (39)	410 (100)	
Female	Poor health	16 (48.5)	17 (51.5)	33 (100)	χ^2 = 5.38

Good health	14 (24.6)	43 (75.4)	57 (100)	(0.020) T^b = 0.245
Total	30 (33.3)	60 (66.7)	90 (100)	

Values in table present frequency while values in parenthesis represent percentage proportion of respondents

Association between State of Health/Wellbeing and Social Exclusion in Children (Controlling Religious Affiliation of the Respondents)

In the table 6, for those Muslim respondents that have poor state of health, 65.7% were socially excluded, compared to 46.5% of those that have good state of health. Likewise, for those non-Muslim respondents that have poor state of health, 72.7% were socially excluded, compared to 87.5% of those that have good state of health. A positive (T^b=0.188) and highly significant (p=0.000) relationship in Muslim respondents was observed between state of health and wellbeing and social exclusion in children. In non-Muslim respondents the relationship in aforementioned variables was non-significant (p=0.282) and negative (T^b=-0.182). The effects of state of health on social exclusion in Muslim and non-Muslim respondents was explained by religion as a control variable as mentioned by their significance and Kendall's Tau-b coefficient value. It is conclusive that health and wellbeing was highly prevalent factor amongst the non-Muslims in comparison to Muslims with reference to its access. The obvious reasons could be the notion of majority, which provided sound basis of participation while making access to health units for addressing their health-related problems under a common roof. In Muslims, however, the problem of access to health services had a restricted inference from the data, probably due to the availability of such services in discrete patterns or only accessed in the unavoidable situations because of poor awareness. In line to this finding, health care facilities in the minority groups had limited provision and had a high rate of deprivation with reference to health services (Roker, 1998; Levitas et al., 2007; and Adelman et al., 2003).

Table 6

Association between State of Health/Wellbeing and Social Exclusion in Children (Controlling Religious Affiliation of the Respondents)

Religion	State of health and wellbeing	Social Exclusion			Statistics
		Socially Excluded	Socially included	Total	χ^2 (P-Value) T^b

Muslim	Poor health	119 (65.7)	62 (34.3)	181 (100)	χ^2 = 16.51 (0.000) T^b = 0.188
	Good health	132 (46.5)	152 (53.5)	284 (100)	
	Total	251 (54)	214 (46)	465 (100)	
Non-Muslim	Poor health	8 (72.7)	3 (27.3)	11 (100)	χ^2 = 1.15 (0.282) T^b = -0.182
	Good health	21 (87.5)	3 (12.5)	24 (100)	
	Total	29 (82.9)	6 (17.1)	35 (100)	

Values in table present frequency while values in parenthesis represent percentage proportion of respondents

Association between State of Health and Wellbeing and Social Exclusion in Children (Controlling Family Type of the Respondents)

In the table 7, for those respondents from joint families that have poor state of health, 67.4% were socially excluded, compared to 56.5% of those that have good state of health. Likewise, for those respondents from nuclear families that have poor state of health, 69.9% were socially excluded, compared to 50% of those that have good state of health. Furthermore, for those respondents from single parent families that has poor state of health, 30.8% were socially excluded, compared to 19.4% of those that have good state of health. Keeping family type as controlling variable, a weak positive (T^b=0.110) and non-significant (p=0.106) relationship in respondents from joint family was observed between state of health and wellbeing and social exclusion in children. In nuclear family group the relationship in aforementioned variables was significant (p=0.002) and positive (T^b=0.196). Similar, weak positive (T^b=0.124) but non-significant (p=0.449) relationship for said variables was observed in single parent family group. Based on the coefficient value of Kendall's Tau-b the association of state of health and social exclusion in children was not explained by family type as a control variable and thus have universal influence in causing social exclusion in children of all family types.

Table 7

*Association between State of Health and Wellbeing and Social exclusion in Children (Controlling Family Type of the Respondents***)**

Family type	Social Exclusion	Statistics χ^2

	State of health and wellbeing	Socially Excluded	Socially included	Total	(P-Value) T^b
Joint	Poor	58 (67.4)	28 (32.6)	86 (100)	$\chi^2 = 2.61$
	Good	74 (56.5)	57 (43.5)	131 (100)	(0.106)
	Total	132 (60.8)	85 (39.2)	217 (100)	$T^b = 0.110$
Nuclear	Poor	65 (69.9)	28 (30.1)	93 (100)	$\chi^2 = 9.21$
	Good	73 (50)	73 (50)	146 (100)	(0.002)
	Total	138 (57.7)	101 (42.3)	239 (100)	$T^b = 0.196$
Single Parent	Poor	4 (30.8)	9 (69.2)	13 (100)	$\chi^2 = 0.679$
	Good	6 (19.4)	25 (80.6)	31 (100)	(0.449)
	Total	10 (22.7)	34 (77.3)	44 (100)	$T^b = 0.124$

Values in table present frequency while values in parenthesis represent percentage proportion of respondents

Wellbeing of the children with relation to exclusion was universal in effect irrespective of its considerations under the influence of any particular family type. Therefore, chances of exclusion could be mitigated at any type of the family provided access to wellbeing by them are ensured to their children as disclosed by Levitas et al. (2007) in his study who had found illness as an outcome of social exclusion in adults without any association to any family type. Provision of health services coupled with housing transportation, education if incorporated as policy documentation could prove vital in mitigation of social exclusion (Nevile, 2005). Poor health and sense of isolation amongst the children could be detrimental if not controlled at any stage of childhood (Burchardt et al., 2002).

Association between State of Health and Well-Being and Social Exclusion in Children (Controlling Income)

In the table 8, for those respondents with insufficient family income that have poor state of health, 47.9% were socially excluded, compared to 27.4% of those that have good state of health. Likewise, for those respondents with sufficient family income that have poor state of health, 95.9% were socially excluded, compared to 68.7% of those that have good state of health. A positive (T^b=0.212) and significant (p=0.001) relationship in respondents from family with insufficient income was observed, between state of health and wellbeing and social exclusion in children. In families with sufficient household income the relationship in aforementioned variables was highly significant (p=0.000) and positive (T^b=0.319). Based on almost similar significance value and coefficient value of Kendall's Tau-b the effects of state of health on social exclusion

in children was non-varying among poor and rich families, and state of child's health work independent of economic prosperity of the family. It could be related to scarcity of medical facilities in the study area, while measuring it with the populace. Levitas et al. (2007); Adelman et al. (2003) and Nevile (2005) have, however, related the social exclusion in health to the poor family background. On the other side, feeling of getting isolated at the childhood level is difficult to be addressed at adulthood and thus feeling of social exclusion could not be mitigated irrespective of the availability of some services in health sector (Burchardt et al., 2002; and Fisher and Bramley, 2006).

Table 8

Association between State of Health and Well-Being and Social Exclusion in Children (Controlling Sufficiency of Income)

Sufficiency of income	State of Health	Social Exclusion			Statistics
		Socially Excluded	Socially included	Total	χ^2 (P-Value) T^b
Insufficient	Poor health	57 (47.9)	62 (52.1)	119 (100)	χ^2 = 10.87
	Good health	34 (27.4)	90 (72.6)	124 (100)	(0.001)
	Total	91 (37.4)	152 (62.6)	243 (100)	T^b = 0.212
Sufficient	Poor health	70 (95.9)	3 (4.1)	73 (100)	χ^2 = 26.174
	Good health	119 (64.7)	65 (35.3)	184 (100)	(0.000)
	Total	189 (73.5)	68 (26.5)	257 (100)	T^b = 0.319

Values in table present frequency while values in parenthesis represent percentage proportion of respondents

Conclusions and Recommendations

Key Findings

1. The study aimed to investigate the link between the health of children and their social exclusion in Pashtun culture.
2. Poverty was identified as a significant factor causing both short-term and long-term health issues in children due to limited access to medical facilities.

3. When considering gender, religion, family type, and income, the study found a positive relationship between the state of health and wellbeing of children and their social exclusion.
4. The data strongly supported the role of health and wellbeing as crucial determinants of social exclusion in children, as outlined in the B-SEM model.
5. The study revealed that the effects of health and wellbeing on social exclusion varied depending on religious denomination.

Implications

1. Poverty and limited access to medical facilities contribute to health problems in children, which in turn lead to social exclusion.
2. The health and wellbeing of children play a vital role in determining their social inclusion or exclusion.
3. The influence of health and wellbeing on social exclusion is not consistent across different religious denominations, suggesting the need for targeted interventions.

Practical Takeaways

1. To address social exclusion in children, efforts should focus on reducing poverty and improving access to medical facilities.
2. Promoting the overall health and wellbeing of children is essential to enhance their social inclusion.
3. Policymakers and practitioners should consider the specific dynamics of different religious denominations when designing interventions to reduce social exclusion among children.
4. Policy Recommendations:
5. Implement policies that target poverty reduction and ensure better access to healthcare services for children in Pashtun culture.
6. Develop programs that promote the health and wellbeing of children to mitigate the risk of social exclusion.
7. Tailor interventions to account for the varying effects of health and wellbeing on social exclusion based on religious denominations.

References

Adelman, L. and Middleton, S. (2003). Social exclusion in childhood: Why and how it should be measured. Some thoughts from Britain. Paper presented at the Australian Social Policy Conference, University of New South Wales, Sydney, Australia, 7-9 July 2003.

Adelman, L., Middleton, S. and Ashworth, K. (2003). Britain's poorest children: Severe and persistent poverty and social exclusion. Save the Children UK: London.

Almeida, I. L. D. L., Rego, J. F., Teixeira, A. C. G., & Moreira, M. R. (2021). Social isolation and its impact on child and adolescent development: a systematic review. Revista Paulista de Pediatria, 40.

Asad U. & Mussawar Shah. (2014a) "Vulnerability to Deprivation from Material and Economic Resources and Social Exclusion in Children from Pashtun Culture." European Scientific Journal. edition vol.10, No.11

Asad U. & Mussawar Shah. (2015). Disparity in access to available services and its effects in social exclusion of children. City, Culture and Society.

Asad U. (2017). Discrimination in Access to Recreation: An Associate of Hostile Attitudes Development among Christian Minority Children. Business and Economics Journal. 8(1),

Asad U. and Mussawar Shah. (2016). Incapacitated decision-making power, over emphasized obedience and its exclusionary effects on children. Journal of Social Inclusion, 7(2), pp. 48-64

Asad U. Mussawar Shah and Bushra Shafi (2014). Environment of Crimes and Violence at Community Level and its Exclusionary Effects on Children. Pakistan Journal of Criminology. Volume 6/No.2/ Jul – Dec, 2014 pp.65-81.

Asad U., and Mussawar Shah. (2017). Falling off the edge: the view of social exclusion in children due to under age employment and low family income. Child Indicators Research, 11(3), 919-944. DOI 10.1007/s12187-017-9449-8

Asad U., Mussawar Shah, Tariq Rahim, Bushra Shafi, and Abbas Ullah Jan. (2015). Problems in Establishment of Sound Social Relations with Family and its Exclusionary Effects on Children. Journal of Exclusion Studies Vol-5, No-1 Feb 2015.

Asad, U. & Mussawar, S. (2014b). Extent of social exclusion in Pashtun Culture: A multidimensional approach. Applied research in quality of life. DOI 10.1007/s11482-014-9379-2

Ashworth, K., Middleton, S., Walker, R., Kellard, K., Peaker, A. and Thomas, M. (1994a). Keeping up appearances: peer

pressures and children's clothes, in S. Middleton, K. Ashworth and R. Walker (eds.) Family fortunes: Pressures on parents and children in the 1990s, London: Child Poverty Action Group, pp. 51-9.

Ashworth, K., Middleton, S., Walker, R., Kellard, K., Peaker, A. and Thomas, M. (1994b). There's nothing to do 'round here: things children do, in S. Middleton, K. Ashworth and R. Walker (eds) Family fortunes: Pressures on parents and children in the 1990s, London: Child Poverty Action Group, pp. 34-50.

Atkinson, T., Bea, C., Eric, M. and Brian, N. (2002). Social Indicators: The EU and Social Inclusion. London: Oxford University Press.

Attree, P. (2004). Growing up in disadvantage: A systematic review of the qualitative evidence. Child: Care, Health and Development, 30 (6), 679-689.

Barnes, M., Blom, A., Cox, K., Lessof, C. and Walker, A. (2006). The social exclusion of older people: Evidence from the first wave of the English Longitudinal Study of Ageing (ELSA), Final report, London: SEU/OPDM, January.

Bejaković, P., Škare, M., & Družeta, R. P. (2021). Social exclusion and health inequalities in the time of COVID-19. Technological and Economic Development of Economy, 27(6), 1563-1581.

BMA (British Medical Association). (2006). Child and adolescent mental health: A guide for healthcare professionals, London: BMA.

Bourke, L., Humphreys, J. and Lukaitis, F. (2009). Health behaviors of young rural residents: a case study. Australian Journal of Rural Health, 17, 86-91.

Burchardt, T., Le Grand, J. and Piachaud, D. (2002). Degrees of exclusion: developing a dynamic multidimensional measure, in J. Hills, J. Le Grand and D. Piachaud (eds) Understanding social exclusion, Oxford: Oxford University Press, pp. 30-43.

DSS (Department of Social Security). (1999). Opportunity for All: Tackling poverty and social exclusion, Cm 4445, London: The Stationery Office.

Evans, G.W. (2004). The environment of childhood poverty. American Psychologist.59: 77-92.

Federal Interagency Forum on Child and Family Statistics.1997. America's Children: Key national indicators of well-being, Washington, DC.

Fisher, T. and Bramley, G. (2006). Social exclusion and local services, in C. Pantazis, D. Gordon and R. Levitas (eds.) Poverty and social exclusion in Britain: The Millennium Survey, Bristol. The Policy Press: 217-48.

González, L., Estarlich, M., Murcia, M., Barreto-Zarza, F., Santa-Marina, L., Simó, S., ... & Rebagliato, M. (2023). Poverty, social exclusion, and mental health: the role of the family context in children aged 7–11 years INMA mother-and-child cohort study. European Child & Adolescent Psychiatry, 32(2), 235-248.

Gordon, D., Adelman, L., Ashworth, K., Bradshaw, J., Levitas, R., Middleton, S., Pantazis, C., Patsios, D., Payne, S., Townsend, P. and Williams, J. (2000). Poverty and social exclusion in Britain, York: Joseph Rowntree Foundation.

Howarth, C., Kenway, P., Palmer, G. and Street, C. (1998). Monitoring poverty and social exclusion: Labor's inheritance, York: NPI/Joseph Rowntree Foundation.

Kanbur, R. and Squires.L. (2002). The Evolution of Thinking about Poverty: Exploring the Interactions. In G.M Meier and J.E. Stieglitz (Eds.), Frontiers of development economics. (pp. 183-227). Oxford University Press: New York

Kothari, C. R. (2004). Research methodology; Methods and techniques (2nded). New Age International (P) Limited Publisher. New Delhi.

Levitas, R. (1996). The concept of social exclusion in the new Durkheimian hegemony. Critical Social Policy.16: 5-20.

Levitas, R., Christina, P., Eldin, F., David, G., Eva, L. and Demi, P. (2007). The multi-dimensional analysis of social exclusion. Bristol institute of Public Affairs, Bristol.

Moffat, S. and Glasgow, N. (2009). How useful is the concept of social exclusion when applied to rural older people in the United Kingdom and the United States? Regional Studies.43 (10): 1291-1303.

Morrow, V. (2001a). Using qualitative methods to elicit young people 's perspectives on their environments: some ideas for community initiatives. Health Education Research.16: 255-268.

Morrow, V. (2001b). Networks and Neighborhoods: children's and young people's perspectives London: NHS

Nachmias.C. F. and David Nachmias. (1992). Research Methods in Social Sciences.4th Ed. St Martin's Press Inco. New York. USA.

Nevile, A. (2005). Policies to combat poverty and social exclusion: Does the south have anything to offer the north? Paper presented at the 'Looking back, Looking forward'

O'Donnell, P., Hannigan, A., Ibrahim, N., O'Donovan, D., & Elmusharaf, K. (2022). Developing a tool for the measurement of social exclusion in healthcare settings. International Journal for Equity in Health, 21(1), 35.

Oliver, K., Collin, P., Burns, J. and Nicholas, J. (2006). Building resilience in young people through meaningful participation. Australian e-Journal for the Advancement of Mental Health.

Prout, A., Simmons, R. and Birchall, J. (2006). Reconnecting and extending the research agenda on children 's participation: mutual incentives and the participation chain in E. K. M. Tisdall (Eds.), Children, young people and social inclusion: participation for what? (pp. 75-104). Bristol: Policy Press.

Roker, D. (1998). Worth more than this: Young people growing up in family poverty, London: The Children's Society.

Rosenbaum, S. (1992). Child health and poor children. American Behavioral Scientist.35: 275-289.

Saunders, P. (2007). Towards New Indicators of Disadvantage Project: Bulletin No. 2: Deprivation in Australia. Social Policy Research Centre Newsletter No. 96, May 2007: 7-10.

Sekaran, U. (2003). Research Methods for Business. USA, Hermitage Publishing Services.

Spicker, P. (2007). The Idea of Poverty. The Policy Press, Great Britain.

Stanley, J., Ng, C.W. and Mestan, K. (2007). Social exclusion in Boroondara – Stage

Tai, S. W. (1978). Social Science Statistics, it Elements and Applications. California, Goodyear Publishing Company.

United Nations (UN). (1948). Universal Declaration of Human Rights. UN. General Assembly.

Vaillancourt, T., McDougall, P., Comeau, J., & Finn, C. (2021). COVID-19 school closures and social isolation in

children and youth: Prioritizing relationships in education. Facets, 6(1), 1795-1813.

Willitts, M. (2006). Measuring child poverty using material deprivation: Possible approaches, DWP Working Paper No 28, Leeds: Corporate Document Services.

Wyn, J. (2009a). Youth health and welfare: the cultural politics of education and wellbeing. South Melbourne: Oxford University Press.

Wyn, J. (2009b). The changing context of Australian youth and its implications for social inclusion. Youth Studies Australia. 28(1): 46-50.