ASSESSMENTS OF YOUTHS' QUALITY OF LIFE IN GILGIT BALTISTAN, PAKISTAN: POLICY RECOMMENDATION STUDY

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ABSTRACT

This study was carried out to assess youths'quality of life in Gilgit-Baltistan (GB), Pakistan. Using the purposive sampling technique, a sample of 635 youths (278 boys & 357 girls) between the ages of 18 and 24 (M=20.01, SD=1.50) was chosen from all districts of GB. The quality of life was evaluated using the World Health Organization Quality of Life (WHOQOL)-BREF (World Health Organization, 2004). The Hawthorne et al. (2006) cut-off scores based on population norms were utilised to interpret quality of life scores for youths. When compared with norms, youths in Gilgit-Baltistan reported poorer levels of perceived quality of life in terms of physical health, psychological well-being, and environment. They did, however, report a higher level of perceived social relationships. Physical health, psychological well-being, and social relationships all have small effect sizes, while the environment domain has a large effect size. The social relationships and environment domain of youth were significantly influenced by gender and family income. The findings are discussed in the context of culture and recommendation are proposed to policy-makers as a way to start programmes that will improve youths' quality of life in GB.

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INTRODUCTION

United Nations defines youth as those persons falling between the age bracket of 15 and 24 years and recognizes the fact that the term 'youth' may have different connotations across societies and countries (United Nations, 1981; 2001; 2008). In Pakistan, youth is defined as a person between the ages of 15 and 29 years (Ashraf et al., 2013). Being a future of any society, youths' quality of life (QoL) is very important but very limited research work on youths' QoL is available particularly in Pakistani cultural context. Nonetheless, most of the available studies of youth generally focused on poor health including disabilities. Despite having its importance such studies do not reflect the health and life perception of the majority of the youth who are free from health problems (Topolski et al., 2004). According to the systematic review on quality-of-life research, the subjects most frequently researched/assessed for QoL using World Health Organization Quality of Life (WHOQOL)-BREF (World Health Organization, 2004) are psychiatric patients followed by general population, caregivers, cardiovascular patients, neurological patients, patients with chronic renal conditions, and elderly (Kluthcovsky & Kluthcovsky, 2009). However, over the last several decades the interest in the assessment of child and adolescents' quality of life increased (Huebner et al., 2012).

The relevant framework for the assessment of youths' QoL needs to incorporate both positive and negative aspects of health and well-being and associated salient features apart from physical health like self-perception, social relationships, environment, culture, and life satisfaction (Topolski et al., 2004). Keeping in view the importance of the measurement of youths' QoL, researchers developed different tools to assess youths' QoL. For example, youth quality of life instrument –research version (Edwards et al., 2002; Patrick et al., 2002) and young adult quality of life instrument (Chen et al., 2004). But the use of WHOQOL-BREF for the assessment of youths' quality of life is very common and psychometrically justifiable (Chen et al., 2006; Skevington et al., 2014) because it is developed based on universally agreed multidimensional definition of quality of life (Li et al., 2009). The WHOQOL-BREF assesses four domains of QoL namely: physical health, psychological well-being, social relationships, and environment.

Studies conducted in different settings on youth populations to assess their QoL using WHOQOL reported different findings. For instance, Chauhan et al. (2020) assessed adolescents' QoL using WHOQOL-BREF in India and found highest QoL in social relationships followed by physical health, and psychological well-being whereas lowest in environment. In another study, Kamaraj and associates

(2016) reported highest QoL in social relationships followed by psychological well-being, environment, and physical health among Indian adolescents. In Hong Kong, Siu (2019) assessed young people's QoL using WHOQOL-BREF and found highest score on environmental domain followed by psychological well-being, physical health and social relationships.

Compos et al. (2013) classified Brazilian adolescents into two social capital categories: low social capital cluster and high social capital cluster and compared their QoL. High social capital cluster reported highest score on psychological well-being followed by social relationships, physical health and environment. On the other hand, low social capital cluster reported highest score on physical health, followed by psychological well-being, social relationships and environment. Statistically significant difference between both groups was found only in environment domain where high social capital cluster reported better environment as compared to low social capital cluster.

Park and colleagues (2019) assessed the QoL of youth having different psychological diagnosis: autism, depression, bipolar, psychosis, and anxiety. Significant differences were found in physical health, psychological well-being, and environment domain across diagnostic conditions. Such as patients with autism reported highest level of physical health and psychological well-being while patients with depression reported lowest level of physical health and psychological well-being. Patients with psychosis reported highest score while patients with depression reported lowest score on environmental domain of quality of life. It is also revealed that patients with different psychological diagnosis reported highest score on social relationships while lowest score on environment.

In the national context of Pakistan, researchers conducted few studies to assess different populations' QoL using WHOQOL. For example, Farooq et al. (2017) assessed school-going adolescents' QoL and reported highest scores on social relationships domain followed by environment, psychological well-being, and physical health. Lodhi and colleagues (2019) conducted study on general population with the age range from 18 to 90 years. The findings revealed highest scores on social relationships followed by psychological well-being, physical health and environment domains. Askari and associates (2020) assessed QoL of care takers of adolescents with Type 1 diabetes. Mothers reported highest score on psychological well-being followed by social relationships, physical health and environment. While fathers reported highest score on social relationships followed by psychological well-being, environment and physical health. In another study, Iqbal et al. (2020)

assessed warfarin patients' QoL. Highest scores were found on psychological well-being followed by social relationships, environment and physical health domains. Batool and Dildar (2019) assessed quality of life in people with drug addiction while Fatima and Jibeen (2019) assessed cardiovascular patients' quality of life but did not report domain-wise scores. Similarly, Jafree et al. (2021) assessed older population's quality of life and reported raw scores.

Researchers reported different predictors of youths' QoL like poor educational attainment, family disruption, and drug/substance use (Renzaho et al., 2016), sex, age, socioeconomic status, marital status, income, and level of education (Chen et al., 2004), and female gender and increasing age (Akari et al., 2020). According to Iqbal et al. (2020), warfarin patients with other comorbidities reported poorer levels of QoL in all domains. Their age, marital status and educational levels significantly predicted psychological well-being while educational level, employment and business significantly predicted environment domain of quality of life. Lodhi et al. (2019) reported that the socioeconomic status of general Pakistani population significantly predicted all domains of QoL. Participants' age and sex significantly predicted their physical health, psychological well-being, and social relationships while type of residency significantly predicted physical health, psychological well-being, and environmental domains of QoL. However, Siu (2019) and Kamaraj and associates (2016) reported insignificant gender differences in all domains of QoL.

The reviewed literature both national and international indicated that youths' QoL varied significantly from region to region and sample-to-sample within the same region. In the national context of Pakistan, the QoL is revealed to be low in general population and significantly varied by socio-demographic variables (Lodhi et al., 2019). Nevertheless, we couldn't find a single study that addressed QoL of youths in Pakistan generally and in Gilgit-Baltistan particularly necessitated the conduction of the present study. The findings of this study would be helpful to know the exact level of youths' QoL and priorities services which enhance youths' QoL in Gilgit-Baltistan, Pakistan. Therefore, the main objectives of the study were:

1. To assess youths' quality of life in Gilgit Baltistan, Pakistan in comparison to norms.

2. To assess the socio-demographic differences in youths' quality of life in Gilgit Baltistan, Pakistan

METHOD

Participants

The sample of 635 youths (Boys=278 & Girls=357) was recruited using a purposive sampling technique. Inclusion criteria was only youths with age ranged 18 to 24 years (M_{age} =20.01, SD=1.50), free from any psychiatric and physical morbidity and belonging to Gilgit-Baltistan. People out of the aformentioned age range, Gilgit-Baltistan, and with mental and physical illneses were excluded as exlusion criteria. Detailed demographic characteristics are presented in Table 1.

Measures

Demographic Information Sheet

This form was used to assess youths' demographic characteristics like gender, livings district, occupations, education, monthly income etc.

World Health Organization Quality of Life-BREF

The World Health Organization Quality of Life (WHOQOL)-BREF was used to assess participants' quality of life in the current study. It is 26-items questionnaire developed by World Health Organization (2004) to assess quality of life. It consists of four domains: physical health (seven items), psychological well-being (six items), social relationship (three items), and environment (eight items). Three items need reverse scoring: item 3, 4, and 26 and all other items are positively worded. In order to make domain scores comparable with the scores used in the WHOQOL-100, the average scores across all domains have to be multiplied by 4. Higher scores in each domain indicate higher level of corresponding quality of life. The all four domains of WHOQOL-BREF are reported to have satisfactory internal consistency i.e. .82 physical health .81 psychological well-being, .8o environment and .68 social relationships .68 (Skevington et al., 2004)

Procedure

Data for the current study was collected from 635 youths including 278 boys and 357 girls from all districts of Gilgit-Baltistan using purposive sampling technique. Before, data collection, a brief screening interview was conducted in order to ensure that the youth is indigenous citizen of GB, free from any kind of

serious physical and mental illness, and not below the age of 18 years and above 24 years. Data was collected through self-administration method however; researchers was available to assist youths if they faced any difficulty. Keeping in view the cultural norms, female researchers collected data from girls while male researchers collected data from boys.

Statistical Analysis

Utilizing Statistical Package for Social Sciences (v.23) the collected data was analyzed. Mean, standard deviation, and frequency were used as descriptive statistical methods to characterise research participants and summarise data. One sample *t*-test was applied to compare sample (youths) means in four domains of quality of life with population norms. To determine youths' QoL in four domains: physical health, psychological well-being, social relationships, and environment, we used the Hawthorne et al. (2006) suggested cut-off scores based on population norms. The recommended general norms were 73.5 for the physical health, 70.6 for psychological well-being, 71.5 for social relationships and 75.1 for the environment domain.

Independent sample *t*-test was used to assess the role of youths' gender and family structure in all domains of quality of life. One-Way Analysis of Variance (ANOVA) was used to assess the role of youths' family monthly income in their quality of life.

Ethical Considerations

The Institutional Bioethics Committee has approved the research protocols and all involved procedures. Youths' participation was voluntary, and they and they reserved the right to end the study at any time or stage. Youths were informed about research objectives, and they were ensured about the confidentiality of their provided data.

RESULTS

Table 1
Demographic Characteristics of Youths (N=635)

Variables	*f*	*%*
Occupation		
Student	503	79.2
Physician	7)	1.1
Engineer	2	0.3
Lawyer	2	0.3
Academician	5	0.5
Business	18	2.8
Armed forces	1	0.2
Police	2	0.3
Farmer	10	1.6
Government employee	6	0.9
Housewife	1	0.2
Education		
Illiterate	30	4.7
Primary	6	0.6
Middle	20	3.1
Secondary	16	2.5
Secondary	16	2.5
Higher Secondary	85	13.4
Tertiary	428	67.4
Living District		
Skardu	102	16.1
Shigar	97	15.3
Kharmang	99	15.6
Ghanche	61	9.6
Ghizer	20	3.1
Hunza	55	8.7
Nagar	33	5.2
Astor	36	5.7
Diamer	85	13.4
Gilgit	47	7.4

Table 1
Continued

Variables	f	%
Family Income		
Below 19000	211	33.2
21000-40000	230	36.2
41000-60000	100	15.7
61000-80000	29	4.6
81000-100000	31	4.9
Above 100000	00	0.0
Marital Status		
Single	490	77.2
Engaged	8	1.3
Married	48	7.6

Table 2
Comparison of Youths' Quality of Life against Cut-off Score (N=635)

| Variable | Population Norms | Youth (*N*=635) | | | | |
	Cut-off Score	*M*	*SD*	*t*	*P*	*Cohen's d*
Physical Health	73.5	67.43	13.60	11.23	.00*	.44
Psychological Well-being	70.6	67.28	13.10	6.37	.00*	.25
Social Relationships	71.5	73.63	14.64	3.69	.00*	.14
Environment	75.1	59.89	14.76	25.95	.00*	1.03

*$p< .05$, $df = 634$

Table 3
Independent t-test showing Gender Differences in Youths' Quality of Life (N=635)

Variable	Boys (n=278)		Girls (n=357)		t	p	Cohen's d
	M	SD	M	SD			
Physical Health	66.31	14.73	68.31	12.60	1.83	.06	-
Psychological Well-being	66.40	14.06	67.97	12.28	1.49	.13	-
Social Relationships	72.27	17.38	74.68	11.69	2.08	.03*	.16
Environment	57.41	15.75	61.83	13.66	3.78	.00*	.30

*p< .05, df = 633

Table 4
Independent t-test showing Family Structure Differences in Youths' Quality of Life (N=581)

Variable	Nuclear Family (n=281)		Joint Family (n=300)		t	p	Cohen's d
	M	SD	M	SD			
Physical Health	67.56	13.92	67.35	13.23	0.18	.85	-
Psychological Wellbeing	66.91	13.21	67.85	13.11	0.86	.38	-
Social Relationships	73.41	16.62	73.81	11.15	0.34	.73	-
Environment	59.72	14.52	59.36	15.13	0.29	.77	-

p> .05, df = 579

Table 5

One-Way Analysis Of Variance showing Family Monthly Income Differences in Youth's Quality of Life (N=601)

Variable	Sources	*SS*	*MS*	*F*	*η²*
Physical Health	Between Groups	1290.22	322.55		
	Within Groups	109613.18	183.91	1.75	-
	Total	110903.40			
Psychological Well-being	Between Groups	1191.73	297.93		
	Within Groups	102975.78	172.73	1.72	-
	Total	104167.52			
Social Relationships	Between Groups	2076.21	519.05		
	Within Groups	123615.56	207.40	2.5*	.01
	Total	125691.77			
Environment	Between Groups	6321.48	1580.37		
	Within Groups	122987.32	206.35	7.65*	.04
	Total	129308.80			

*p<.05, df= 4, 596

DISCUSSION

This study aimed to assess youths' quality of life in Gilgit-Baltistan (GB), Pakistan. The results indicate youths in Gilgit-Baltistan reported poorer levels of perceived quality of life in areas of physical health, psychological well-being, and environment reduced. They did, however, report a higher level of perceived social realtionships. Physical health, psychological well-being, and social relationships all

have small effect sizes, while the environment domain has large effect size. (Table 2). There are some studies which were conducted in Pakistan using the same instrument (WHOQOL-BREF) to assess different populations' QoL. Few of them were conducted on healthy general populations (e.g. Iqbl, 2021; Lodhi et al., 2017; Lodhi et al., 2019; Lodhi et al., 2020), three employed student populations (e.g. Aziz et al., 2020; Farooq et al., 2017; Naseem et al., 2016) and few studies were conducted on patients with different illnesses (e.g. Askari et al., 2020; Iqbal et al., 2020; Lodhi et al., 2017).

The aggregate mean scores in the domains of physical health, psychological well-being, social relationships, and environment are 65.18, 68.11, 71.75, and 58.03 in researches employing healthy populations. The mean score for physical health, social relationships, and environment domains in our sample are greater, while the psychological well-being domain is lower. According to studies done on students' population of Pakistan, the overall mean scores in the domains of physical health, psychological well-being, social relationships, and environment are 61.43, 64.29, 67.96, and 67.87, respectively. When measured against our sample, Pakistani youths' aggregate mean scores reveal lower levels of social realtionship, psychological well-being, and physical health however higher levels of environment. The mean aggregate scores for the domains of physical health, psychological well-being, social relationships and environment in researches on patients with various illnesses are 58.26, 63.61, 64.20, and 57.75, respectively. When compared to patients in Pakistan who were suffering from various illnesses, youths in GB reported higher levels of physical health, psychological well-being, social relationships and better environments.

To conclude present findings pertaining to comparison with norms, youths in GB reported better level of QoL as compared to different populations in rest of the country except two points i.e. general population in Pakistan reported slightly better psychological well-being and student population in Pakistan reported better environment as compared to youths in GB. However, youths in GB still have a lesser quality of life than norms in terms of their physical health, psychological well-being, and environment. Nonetheless, youths in GB have better social relationships as compared to norms that suggests the beautiy and uniqueness of GB society where youths still have higher level of social bonds. Gilgit-Baltistan as a mountainous and far-flung region of Pakistan has natural problems for its inhabitants including scarcity of medical facilities (Hussain et al., 2017) and higher level of mental illnesses (Ahmad et al., 2017; Ahmad et al., 2018). People living in mountain communities reported having lower level in tangible indicators of QoL such as

household economy, built environment, health, and education (Kanji et al., 2012). Likewise, rural dwellers reported lower levels of physical health, psychological well-being and environment as compared to urban residents (Sampaio et al., 2013). On the other hand, some researchers reported that people living in rural settings have higher level of social integration and relationships (Adjaye-Gbewonyo et al., 2019; Henning-Smith, 2019; Ward et al., 2020) hence support our findings i.e. youths in GB reported higher level of social relationships.

Pertaining to socio-economic differences in youths' QoL, the findings of the present study shows significant gender difference in social relationships and environment domains of quality of life where female youths reported significantly higher mean levels as compared to male youths (Table 3). Naseem et al. (2016) reported that Pakistani female medical students reported higher level in social relationships domain while male medical students reported higher level in physical health domain. Inconsistent with our findings, Pakistani male participants reported higher level of quality of life in psychological, social, and environmental domains as compared to female participants (Lodhi et al., 2020). On the other hand, Aziz et al. (2020) reported insignificant gender differences in all domains of quality of life among Pakistani medical students. Like our findings, Nedjat et al. (2011) also reported insignificant gender difference in psychological well-being and significant difference in environment domain that is females scored higher in environment domain as compared to males. Hence, the gender difference in different facets of quality of life is not generic but it is contextual dependent construct.

Further, findings of the current study (Table 4) demonstrated that youths' family monthly income significantly influenced their reported QoL in social relationships and environment domains. Post-hoc (Bonferroni) analysis revealed that the intergroup comparisons on social relationships was not significant. However, youths with family income ranged 41-60K and 81-100K reported better environment as compared to youths with family income less than 19K and youths with family income ranged 20-40K. Thus, Post-hoc analysis reveals decreasing income to be a risk factor only for their poor environment. Nevertheless, Lodhi et al. (2019) and Khan et al. (2014) reported lower socioeconomic status as a significant risk factor of poor QoL for all domains. Our findings in comparison with reviewed studies signified the importance of monthly income only for youths' environment domain of QoL.

Moreover, in the present study, youth's family structure (joint & nuclear) did not significantly influence their reported QoL (Table 5). Similar findings

reported by Khan et al. (2014) where participants' family type did not influence their reported quality of life in physical health, psychological well-being, and social relationships except one difference i.e. joint family participants reported better environment as compared to nuclear family participants.

In conclusion, our findings reveal that youth in GB have lower levels of QoL in terms of physical health, psychological well-being, and environment. These findings are not much different from rest of the county however, they have reported higher level of social relationships as compared to norms and rest of the country. This signifies that social connectivity, integration, and support are the strength and uniqueness of GB youths. The findigs also suggest that youths' some socio-demographic variables tend to play an important role in some domains of their QoL i.e. female youths reported better social relationships and environment as compared to male youths and decreasing family monthly income is suggested to be a risk factor for youths' environment.

The findings have few limitations that needs to be considered when drawing inferences and also suggest avenues for future studies. Our research data are based on self-perception of research participations. In addition, sampling technique of the present study is another limitation as youths were approached through purposive sampling technique. Future studies may use random sampling and tangible aspects of quality of life for more comprehensive and empirical results. Despite the limitations, our findings suggest following policy recommendations for provincial government, federal government and other stakeholders to address the poor quality of life of GB youths.

- Ensure the availability of general health facilities and mental health facilities for the youths of GB

- Better environment can be created for the youths of GB where services suchas safety and security, accessibility and employment opportunities, transportation facilities, recreational facilities, and protection of natural environment included in developmental projects.

- Most importantly, GB youth have higher level of social relationships; all stakeholders are recommended to take preventive steps to preserve this indigenous and unique strength of GB from any kind of possible acculturation.

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