QUALITY OF LIFE AND MENTAL HEALTH AMONG UNIVERSITY STUDENTS: A COMPARISON OF SPORTS PARTICIPANTS AND NON-PARTICIPANTS

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ABSTRACT

The present research aims to find the relationship between quality of life in the context of mental health among sports participants and non-participants. This is a correlational study that seeks to find the strength of relationship between two characteristics viz. Quality of Life and Mental wellbeing among sports participants and non-participants at university level. Quality of Life Inventory (QOLI), The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) instruments was applied to the participants. 98 male and female graduates and post graduates from University of Sindh, Jamshoro (age range from 18 to 30 years) were selected through simple random sampling technique. The results indicated that the total QLI score is significantly correlated with total scores of WEMWBS for sports participants and non-participants ($r = .661$, $p < .01$). An association has also been recorded in different subscales of QLI and WEMWBS. Significant differences were found between the total scores of Quality of Life Inventory (QLI) among sports participants and sports non-participants ($t=3.801$, $p=.000$). The same results have been recorded on almost all subscales of QLI except Social Support and Money where the score indicates ($t=1.334$, $p=.185$) and ($t=-.779$, $p=.438$) the value of t is 3.801, $p=.0000$ among sports participants and sports non-participants.

INTRODUCTION

Quality of life (QoL) is the overall wellbeing of people and social orders. It has widely been used across the globe in variety of settings, including the fields of global development and advancement, human services, governmental issues and employment. Quality of life is different from '*standard of life*', which is constructed basically in light of earning or financial status, while the quality of life incorporates wealth and employment as well as the built environment, physical and emotional wellbeing,

education, entertainment and recreation time, and social belonging (Gregory, Derek; Johnston, Ron; Pratt, Geraldine; Watts, Michael; Whatmore, Sarah, eds. June 2009). Virtually every democratic society is now influenced by notions of Quality of Life (QOL) when dealing with public policymaking and service delivery.

It is hard to make objective, bias free and / or long-term estimations of the quality of life in different countries or different communities. Analysts have started to recognize two parts of personal wellbeing: Emotional wellbeing, in which respondents are inquired the information regarding the nature of their routine life's emotional encounters, and life evaluation, in which respondents are sought some information regarding their life all in all and assess it against a scale. Such and different systems and scales of measurement are being used for some time. The present study aims to assess the relationship between quality of life and industriousness of an individual in the context of mental health among sports participants and non-participants.

Wellbeing and Quality of Life

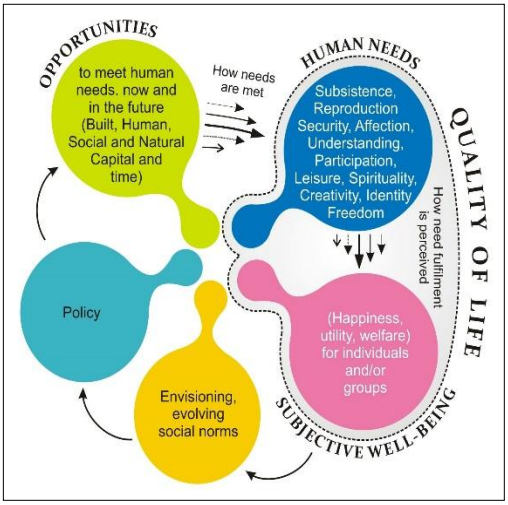
Griffin (1986) portrays wellbeing as "what is non-instrumentally or eventually useful for a person" and how well a person's life is going for himself or herself. It might not be easy to characterize what is useful for a person, as there are some short-term and some long-term considerations. There is a need to make a difference between what is useful for a person and what appears to be good for him or her.

QOL is a dynamic rather multidimensional idea which incorporates material well-being, physical well-being, social well-being, emotional well-being, and productive well-being. Some researchers contend that objective life circumstances (e.g., health and education condition rate in a country) and the subjective perceptions of the people in assessing these objective living circumstances (their feelings of satisfaction with such life circumstances) are critical measurements to be considered as an integral part of quality of life. There are some other and different views that propose that an overall approach is needed to have a comprehen-

sive idea of "quality-of-life" (Shek et al. 2005). The "objective" measurements of QOL by and large depend on tangible factors including social, economic, and health markers (Cummins, R.A et al., 2003), using instruments, for example, the UN's Human Development Index (HDI) and GDP /capita (Vemuri A.W. & Costanza, R. 2006). The "subjective" measurements normally concentrate on individual's reports of life experience that supplement objective factors like socio-economic and health resources, for example, the extent to which an apparent need is being met and the significance of that 'apparent need' to one's general QOL.

Costanza, R. et al. (2006) in an attempt, to have best out of the many, integrated all the different approaches to measure QOL.This integrative rather comprehensive approach defines QOL as the extent to which objective human needs are satisfied or met in relation to personal or group perceptions of subjective well-being (Fig. 1).

Figure-1



*Source: Costanza, R. et al. (2006) *Quality of life: An approach integrating opportunities, human needs, and subjective well-being.*

Rationale of the Study:

Quality of life is an expression used to characterize individuals' sense of wellbeing. Though everybody desire to have quality of life but, interestingly it is difficult to be evaluated. Sports and other physical activities can play an important role to one's Quality of life, and various scholarly studies demonstrate it can affect physical and emotional wellness, social life and life opportunities. There is a developing awareness of the signifycance of sports and physical activeties for a community's well-being and Quality of life. A long

way from the origination of sports and other physical activities as only a stage for competition, in which the lion's share are spectators from whom not many effectively take part, various studies show that the development of sporting habits among the masses particularly the youth is an amazing measure for averting and treating common and minor diseases. Sports are likewise an alternate option to lifestyles that are destructive to our wellbeing and a way to broaden our system of social relations. The advantages of sports and physical exercises pointed out by the specialists are presently perceived by most of the people and the promotion of sports and physical exercises has turned into a piece of current general health and wellbeing policies in different countries across the board (Sánchez, et al. 2009).

Hypotheses of the Study

Following hypotheses are designed to be testified in the study:

H#01: Quality of Life is positively correlated with mental wellbeing of Sports participants.

H#02: Participation in Sports and other physical activities lead to have positive mental health.

H#03: Sports participants score higher on Quality of Life Scale than non-participants.

H#04: Sports participants score higher on Mental Wellbeing Scale than non-participants.

H#05: There is a positive correlation between different components of Quality of life and Mental Wellbeing.

The Contribution of Sport to Quality of Life and Well-Being

Snyder and Spreitzer (1974) investigated and found the positive relationship between sports participants with mental wellbeing in adults in Ohio. The researchers considered whether sports serves catharsis and like feelings in the sports participants. In another study Wankel and Berger (2005) added a model of sports values, and review of scientific research evidence for this framework. They explored the four

areas which include subjective entertainment, subjective growth, social participation / integration and last but not the least, the social change. They contend that there is evidence that subjective entertainment or "fun" is conceived from being part of sports under specific conditions. Conducive conditions and opportunities to participate are likewise seen as an important element in the mental and social advantages of sports. However, the exploration has a few confinements, like there is practically very little or no work on adults participation in sports. Taylor (2000) contends that there is a stern need to explore more and come to the solid conclusion that "how separate enjoyment interludes relate with the general quality of life".

Chalip and Thomas (1992) of New Zealand looked into the research on sports and psychology, particularly connecting it with policy implementation. They tried to find the association of youngsters in game and the relationship between self-management of sports activity and motivation to participate. This research included a qualitative investigation of adolescents who manage and execute a sports center. The research concluded that it is not the sports such as much as the chance to control their own territory of action that fascinates the youngsters in any case. The researchers contend for more prominent inclusion of youngsters in the decision making and administration of sports and recreational activities.

Research Design

The present study is an empirical study that intends to find out to what extent the relationship persists between two characteristics viz. Quality of Life and Mental wellbeing among Sports participants and non-participants in a group of youth studying in the university.

Sample

Population for the study was male and female students (age range from 18 to 30 years) studying in graduate and post graduate programs in the University of Sindh, Jamshoro. Total participants for the study is 98 out of which 49 are male and 49 female (n=98). Sample of the participants was drawn following the Simple Random Sampling technique. Out of 98 study partici-

pants, 49 were participants in either Invasion games (football, hockey, netball, basketball and rugby) or Net/wall/racket games (tennis, badminton, squash, table tennis, volleyball and racket ball) and / or Fielding / striking games (cricket, baseball and softball). Gymnastics, Athletes, Outdoor pursuits, Dancers, Target and Combat sports participants were eligible to participate in the study. While the 49 were non-participants in the sports, they were either sports loving people like spectators, or playing board games like Luddo, Carrom, or Chess and/ or the games using gadget (like mobile or computer), they were treated as non-participants.

Instruments

Following instruments were applied to the participants:

Quality of Life Inventory (QOLI)

It is for the most part conceptualized as a multi-dimensional tool made up of various independent domains including physical wellbeing, mental wellbeing, social connections, functional parts and subjective feeling of life satisfaction. It was developed by Frisch, M in 2009 which is grounded on his theory Quality of Life Theory (Frisch, 1994, 1998).

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

The Warwick-Edinburgh Mental Well-being Scale (WEM WBS) was developed by Prof. Sarah Stewart-Brown and Dr. Kulsum Jan Mohamed at the Universities of Warwick and Edinburgh in June-2008. This scale is scored by adding replies to every item replied on a 1 to 5 Likert scale. The minimum scale score is 14 and the maximum is 70. WEMWBS has been validated for those aged 16 and above.

Results

Table 01
Frequency Distribution of Total score of Quality of Life Inventory (QLI)

Sports participants		Non-participants in Sports	
S1.	94	G1.	100
S2.	86	G2.	96
S3.	73	G3.	94
S4.	101	G4.	83
S5.	87	G5.	90
S6.	97	G6.	94
S7.	95	G7.	90
S8.	94	G8.	81
S9.	120	G9.	63
S10.	98	G10.	91
S11.	99	G11.	91
S12.	122	G12.	82
S13.	117	G13.	90
S14.	117	G14.	82
S15.	89	G15.	62
S16.	112	G16.	95
S17.	110	G17.	76
S18.	97	G18.	96
S19.	98	G19.	82
S20.	100	G20.	96
S21.	83	G21.	94
S22.	99	G22.	98
S23.	80	G23.	77
S24.	86	G24.	92
S25.	66	G25.	60
S26.	101	G26.	78
S27.	98	G27.	101
S28.	75	G28.	77
S29.	103	G29.	101
S30.	94	G30.	81
S31.	96	G31.	90
S32.	82	G32.	102
S33.	100	G33.	82
S34.	88	G34.	94
S35.	96	G35.	86
S36.	97	G36.	101
S37.	86	G37.	89
S38.	118	G38.	92
S39.	92	G39.	80
S40.	101	G40.	96
S41.	88	G41.	91
S42.	87	G42.	81
S43.	112	G43.	89
S44.	95	G44.	92
S45.	103	G45.	94
S46.	98	G46.	82
S47.	95	G47.	91
S48.	98	G48.	96
S49.	92	G49.	85
Total	**4715**	**4306**	

Figure-2

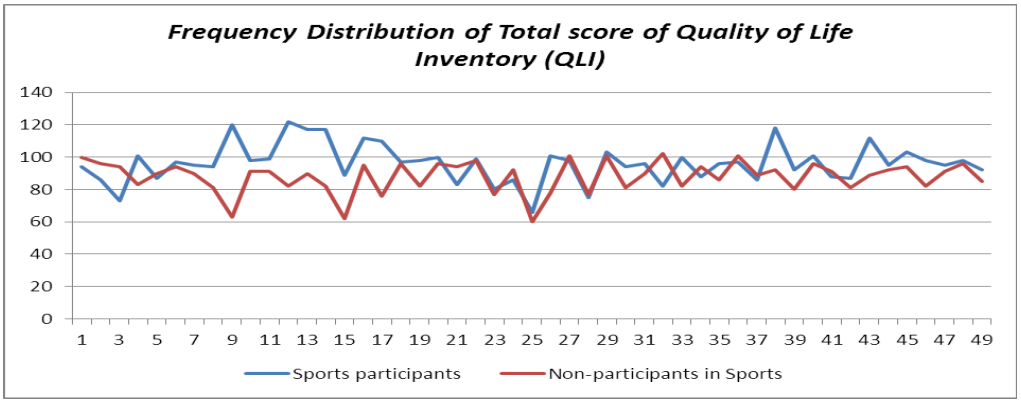


Table 2
Frequency Distribution of Total score of Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

Sports participants		Non-participants in Sports	
S1.	51	G1.	54
S2.	52	G2.	56
S3.	44	G3.	53
S4.	56	G4.	47
S5.	65	G5.	58
S6.	56	G6.	57
S7.	56	G7.	42
S8.	58	G8.	53
S9.	65	G9.	46
S10.	56	G10.	61
S11.	51	G11.	59
S12.	64	G12.	51
S13.	64	G13.	64
S14.	64	G14.	57
S15.	49	G15.	35
S16.	61	G16.	46
S17.	57	G17.	47
S18.	61	G18.	53
S19.	56	G19.	36
S20.	46	G20.	50
S21.	56	G21.	55
S22.	61	G22.	53
S23.	51	G23.	48
S24.	55	G24.	54
S25.	44	G25.	33
S26.	55	G26.	42
S27.	63	G27.	58
S28.	42	G28.	44
S29.	55	G29.	51
S30.	49	G30.	37
S31.	56	G31.	57
S32.	65	G32.	57
S33.	58	G33.	54
S34.	51	G34.	59
S35.	60	G35.	49
S36.	62	G36.	54
S37.	50	G37.	57
S38.	57	G38.	44
S39.	54	G39.	39
S40.	66	G40.	48
S41.	57	G41.	54
S42.	49	G42.	45
S43.	65	G43.	44
S44.	58	G44.	50
S45.	55	G45.	50
S46.	60	G46.	53
S47.	60	G47.	42
S48.	61	G48.	57
S49.	48	G49.	49
Total	**2755**	**2462**	

Figure-3

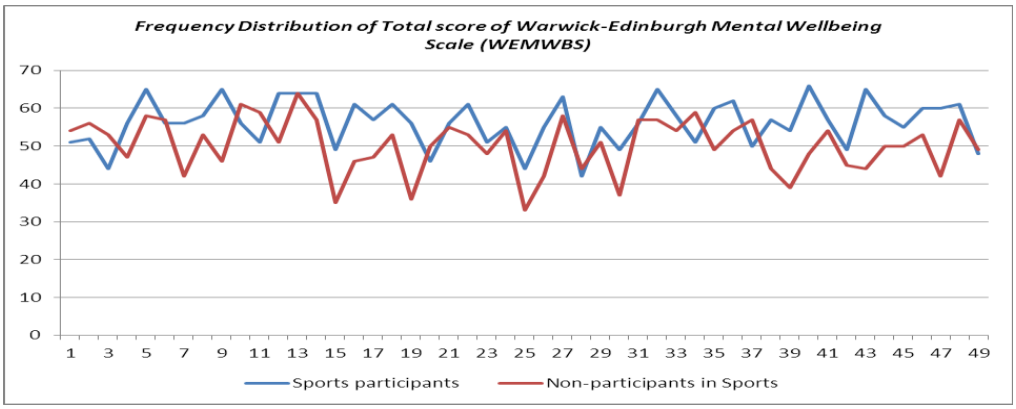


Table 3
Total Score of Components of Quality of Life Inventory (QLI)

	Components of QLI	Sports participants	Non-participants in Sports
1.	General Satisfaction	575	512
2.	Occupational Activities	379	333
3.	Activities of Daily Life	543	486
4.	Psychological Well-Being	596	524
5.	Symptoms/Outlook	566	502
6.	Physical Health	636	538
7.	Social Relations / Support	747	716
8.	Money	673	695
	Total	**4715**	**4306**

Figure 4

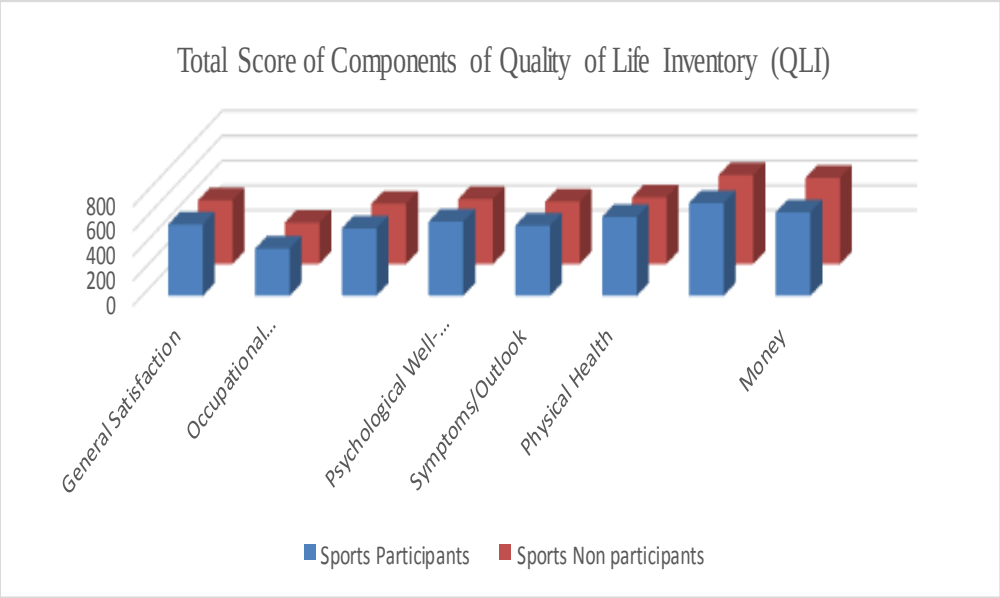


Table 4
Psychometric Properties of the Major Study Variables

Scales	N	M	SD	α	Min	Max	Skew
QoL	98	92.05	11.59	.85	60	122	-0.09
WMWS	98	53.23	7.29	.79	33	66	-0.53

Note. M= Mean; SD= Standard Deviation; QoL= Quality of Life; WMWS=Warwick Mental Wellbeing Scale

Table 5
t-test analysis between Sports Participants and Non- sport Participants groups

	Groups							
	Sports Participants		Non- sport Participants				95% CI	
Variables	*M*	*SD*	*M*	*SD*	*t*	*p*	LL UL	Cohen's *d*
Quality of Life Inventory (QLI)	96.22	11.85	87.88	9.78	3.801	.000	[3.98, 12.70]	0.77
Warwick Mental Wellbeing Scale (WMWS)	56.22	6.15	50.24	7.17	4.429	.000	[3.30, 08.66]	0.89
General Satisfaction	11.73	2.08	10.45	1.81	3.252	.002	[0.50, 2.07]	0.66
Occupational Activities	7.73	0.99	6.80	1.30	4.001	.000	[0.47, 1.43]	0.72
Activities of Daily Life	11.08	2.30	9.92	2.06	2.632	.010	[0.28, 2.04]	0.53
Psychological Wellbeing	12.16	1.97	10.69	1.91	3.740	.000	[0.68, 2.24]	0.76
Overall Outlook	11.55	2.25	10.24	1.61	3.297	.001	[0.52, 2.09]	0.67
Physical Health	12.98	1.84	10.98	1.88	5.308	.000	[1.25, 2.74]	1.08
Social Support	15.24	2.66	14.61	1.97	1.334	.185	[-0.30, 1.57]	0.27
Money	13.73	3.13	14.18	2.53	-.779	.438	[-1.59, 0.69]	0.16

Note. M= Mean; SD= Standard Deviation; Cl = confidence interval; LL = lower limit, UL = upper limit.

Table 6
Bivariate Correlations between Warwick Mental Wellbeing Scale, Quality of Life Inventory and Quality of Life Inventory sub Scales.

Variables	1	2	3	4	5	6	7	8	9	10
1. Warwick Mental Wellbeing Scale	**1**									
2. Quality of Life Inventory	**0.661****	1								
3. General Satisfaction	**0.554****	0.715**	1							
4. Occupational Activities	**0.440****	0.671**	0.525**	1						
5. Activities of Daily Living	**0.440****	0.780**	0.612**	0.472**	1					
6. Psychological Wellbeing	**0.293****	0.646**	0.327**	0.545**	0.386**	1				
7. Overall Outlook	**0.544****	0.744**	0.485**	0.436**	0.493**	0.467**	1			
8. Physical Health	**0.314****	0.577**	0.457**	0.448**	0.305**	0.346**	0.436**	1		
9. Social Support	**0.521****	0.706**	0.445**	0.315**	0.527**	0.283**	0.468**	0.178	1	
10. Money	**0.383****	0.624**	0.182	0.238*	0.438**	0.296**	0.328**	0.130	0.499**	1

Note: Correlations marked with an asterisk (*) were significant at $p < .05$, and (**) were significant at $p < .01$.

Discussion

Findings of the study reveal significant differences between the total scores of Quality of Life Inventory (QLI) among sports participants and sports non-participants (t=3.801, p=.000). The same results have been recorded on almost all subscales of QLI except Social Support and Money where the score indicates (t=1.334, p=.185) and (t=-.779, p=.438) (see table 5). The results of the current study also point out significant differences (t=4.429, p=.000) found between the score of sports participants and sports non-participants at WEMWBS (see table 5).

The effect size (Cohen's d) has also been calculated, which also supported the previous findings. The effect size is quite large in the scales and almost all subscales of QLI and WEMWBS among sports participants and sports non-participants while magni-

tude of effect is low in subscales of Social Support and Money of QLI among sports participants and sports non-participants (see table No. 5). The results indicated that the total QLI score (sports participants and sports non-participants) and WEMWBS (Sports participants / non-participants) is significantly correlated with one another (r= .661, p< .01). The correlation between subscale General Satisfaction of QLI and WEMWBS also show a strong association between the two (r=0.554, p<.01); the correlation between subscale Occupational Activities of QLI and WEMWBS also show an association between the two (r=0.440, p<.01); the correlation between subscale Activities of Daily living of QLI and WEMWBS also show an association between the two (r=0.440, p<.01); the correlation between subscale Psychological Wellbeing of QLI and WEMWBS also show a considerably weak relationship between the two (r=0.293, p<.01); the correlation between subscale Overall Outlook of QLI and WEMWBS also show a strong association between the two (r=0.544, p<.01); the correlation between subscale Physical Health of QLI and WEMWBS also show a weak relationship between the two (r=0.314, p<.01); the correlation between subscale Social Support of QLI and WEMWBS also show a strong association between the two (r=0.521, p<.01) and the correlation between subscale Money of QLI and WEMWBS also show a poor relationship between the two (r=0.383, p<.01) (See Table No.6).

The psychometric properties of scores of QLI and WEMWBS also been measured. The results show all the items in both the scales are internally consistent and reliable. The value of α is 0.85 for QOL, whereas the value of α is 0.79 for WEMWBS (see table No. 4).

Summary and Conclusion:

Since there is no globally accepted definition of Quality of Life, particularly when you are dealing with the existing sports and exercise. This lack of conceptual clarity and consistency has further increases the dilemma of using inconsistent methodological approaches across the culture, with variety of measurement objects and subjects as well. This subsequently generated a verge of compatibility and comparabi-

lity among different studies dealing with QOL and Mental wellbeing.

The research findings suggest a positive relationship between sports participants and sports non-participants over Quality of Life Scale. This means that the participants in sports rate the Quality of Life in almost the same as the non-participants, on the one hand; and on the other hand, it also indicates that sports and physical exercises along with other factors play key roles to determine Quality of Life.

Although sports participants score higher on almost every dimension, except Money, as compared to sports non-participants over QOLI but statistically there are two dimensions that are positively correlated with the scores on WEMWBS. These dimensions include Psychological Wellbeing and Physical Health. Interestingly, the scores of sports participants as well non-participants are positively correlated with the total score on WEMWBS. Since the sample of the study was youth from the university so it is expected that the study participants are competitive enough to meet the tough standards of higher education so as they must rate themselves as psychological well and physically fit.

The research findings also revealed a significant relationship between scores of sports participants and sports non-participants over Warwick-Edinburg Mental Wellbeing Scale. Sports participants score higher on WEMWBS as compared to sports non-participants. From this, we can derive a conclusion that there is an association between sports participation and aspects of mental well-being such as the alleviation of depression and anxiety among the youth.

Interestingly, sports participation showed their less satisfaction of having money and other monetary resources to meet their everyday life needs as compared to sports non-participants. It has been observed that in our society, where inflation is high and there is no control over prices, people have difficulty to maintain their life standard that they have established. People have to work hard and/ or rely more than one source of income to

meet their everyday life needs. Participation in sports and other physical exercises is another liability that they have to bear. To continue with expenditures of participation in sports and other exercises along with other life's everyday expenditures, give people dissatisfaction of having a few monetary resources / money to meet with. While, the sports non-participants showed their relative satisfaction of having enough money / monetary resources to meet their everyday life needs.

Although, empirical evidence did not support either causal relationship between General Satisfaction, Occupational Activities, Activities of Daily Life, Symptoms / Outlook, Social Support, and Money with Mental wellbeing, nor help us to understand how sports participation might lead to these outcomes, or whether participation in other types of leisure activity might produce the same type of outcome. Hence, our first two hypotheses, which state the positive relationship between Quality of Life and Mental wellbeing in Sports participants and participation in sports and other physical exercises improves metal wellbeing as compared to sports non-participants, are proved by the research findings. Similarly the hypotheses 03 and 04 are supported by study findings. These hypotheses state Sports participants score higher on Quality of Life Scale and Mental Wellbeing Scale than non-participants. The data also revealed the hypothesis 05 could neither be proved at all nor categorically rejected. Except two variables of Money and Social Support, sports participants and sports non-participants score there was not much differences found. This might due to sports participants consider monetary sources are even more important to meet their expenditures and obviously sports is in itself a great source of socialization and social support. Sports participants could not matched over socialization with sports non-participants.

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