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### RESEARCH ARTICLE

#### HEALTH RELATED QUALITY OF LIFE AMONG THE RANA PLAZA TRAGEDY SURVIVORS IN THE COMMUNITY.

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Rana Plaza Tragedy, Rana Plaza survivors, Health Related Quality of life, SF36.

#### Abstract

**Purpose:** The purpose of the study was to identify Health-related Quality of life among Rana Plaza tragedy survivors in the community.

**Methodology:** Study was conducted through Cross-sectional study design among 50 participants of Rana Plaza survivors who were selected by convenient sampling technique. SF-36 questionnaire was used to conduct the research and data was analysed by SPSS.

**Results:** Mean age of the participants was 32.74 years and SD was 6.963. Health Related Quality of life of survivors was detected by a questionnaire SF-36 and there was 8 dimensions, from these dimensions the mean score of physical functioning was 54.50%, Role limitation due to physical health was 45.75%, Role limitation due to emotional problem was 75.40%, Energy or fatigue was 55.73%, Emotional well-being was 56.98%, Social functioning was 53.60%, Pain was 45.15%, and lastly general health was 40.20%. According to SF-36 score range their physical health was poor and mental health was fair. HRQOL is significantly associated with their Sociodemographic characteristics  $p < 0.05$ .

**Conclusion:** Participants who were working on the community they are now still suffering post-traumatic stress. Though the governmental and non-governmental organization helped them lot but this was not sufficient. **Some of them require further treatment but they do not continue their treatment due to their poor economical status and this situation indirectly create a bad effect into their life. so the government and non-government organization should provide support to the survivors and try to improve their health status.**

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## Introduction:-

Bangladesh is one of the most disaster-prone nations in the world. The geographical location, land characteristics, multiplicity of rivers and the monsoon climate render Bangladesh highly vulnerable to natural hazards (UNOPS, 2008). Natural disaster is the significant cause for mortality, morbidity, and disability and most of the disability occurs due to high numbers of traumatic injuries that severely impact health of the injured population and the overall health system of the affected country (Phalkey et al., 2011).

In recent Bangladeshi people have face some manmade disaster and Rana Plaza tragedy was one of them. On 24th April 2013, Bangladesh skilled a sad prevalence and it became the maximum bad occurrence than preceding which is known as “Rana Plaza Tragedy”. Rana Plaza situated at Savar sub district in Dhaka suddenly collapsed around 9 o’clock in the morning. Its miles one of the Worst tragedies of building collapse in the history of the field which took greater than 1000 lives. Approximately 1129 people died due to crumble of the building and extra than 2000 human beings are dwelling without or with disabilities in Bangladesh (WHO, 2013).

Rana Plaza built as a nine-storied building in Savar that housed 4 garment factories with a selection of stores. Despite of the fact that Rana Plaza had allow building a five-storied constructing for stores and residential accommodation, the owner made it nine testimonies. The Bangladeshi information media stated that inspection groups determined cracks in the shape of Rana Plaza on Tuesday (the day before disintegrate). Stores and a financial institution department at the decrease flooring have been at once closed (Malkin, 2014). But, the proprietors of the garment factories on the top floors ordered employees to work on Wednesday (the day of collapse), without any protection to prevent the risk. Jahangir (2013) said in a piece of writing that once Rana plaza incident, the rescue teams through their super efforts succeeded to store 2465 lives from the rubbles. It is predicted that more or less 3122 people were trapped interior. consistent with WHO document it's far located that approximately 1127 survivors died on the spot and health facility, about 1,885 humans were discharged through may also 2, 2013 (after one week) with receiving instant treatments from specific hospitals.

Consequently, we encounter a few tragic and sad incidents because of over population, proprietor careless mindset, absence of regularity authority and ‘danger’ taking tendencies of the unsafe workers as this job is primarily the sole profits of the families. In Bangladesh, humans are familiar with constructing disintegrate incidents; the building collapsing records are not always unknown with those who are conducting production zone. Clothes manufacturing unit related uncertain instants are going to be horrible day by day. The Tajrneen factory fire, Bipail building collapse, Tejgaon building collapse, Sankharibazar building collapse is are some of the tragedies now (Alvi, 2014). Building collapses are a major motive of mortality and morbidity around the area. Within the remaining decade, some of building has collapsed causing a full-size wide variety of deaths and illness. In current years, high and middle earnings nations like America, South Korea, Turkey, Austria, and China have experienced screw ups due to collapsed building (BBC news, 2014).

The world health organization define quality of life (QoL) as ‘an individual perception of his/her position in life in the context of the culture and value systems in which he or she lives, and in relation to his/ her goals, expectations, standards, concern’. According to this definition, Quality of life is a complex concept. Entailing the people’s physical health and level of independence, as well as psychological wellbeing, social perception and the relationship with specific and relevant aspects of the environment (Hill et al., 2010).

When any disasters occur, disaster management institutions and health care institutions have to provide major services. Quality and efficiency of these emergency services depend on the degree of the comprehensiveness of the disaster management plan available resources. So hospital function is very extensively related to the management of earthquake management and its recovery. Unlike to other disasters, earthquakes can damage the hospital severely. Hospital can be damaged structurally and non-structurally (Urmi et al., 2014).

Living with an injury or disability affect the ones quality of life and after any damage or building collapse who are survive after this accident it makes an enormous effect on their physical, mental, social, psychological life (Hyeon, 2007).

Therefore, the researcher is involved to find out the health-related quality of life of the existing survivors who've face that terrible tragedy (Rana plaza), is probably affected undoubtedly or harmfully on their physical, mental, psychosocial satisfactory of life.

## Materials and Methods: -

### 2.1 Study design

A quantitative research model in the form of a cross-sectional type survey design is used. Cross sectional study (also called a prevalence survey) aim at describing and quantifying the distribution of certain variables in a study population at point of time. It provides a snapshot of the health experience of a population at a given time (Hannan, 2007).

### 2.2 study area

It is being worked for persons with disabilities to reintegrate them at their community life. The investigator was choosed Savar, Dhamrai upazilla and Manikgonj district as a study area for collecting data.

### 2.3 Study population

“Rana Plaza” tragedy survivors in the community who lives in Savar, Dhamrai Upazila and Manikgonj district.

### 2.4 Sampling procedure

In the study here used convenient sampling technique, considering the inclusion and exclusion criteria.

### 2.5 Sampling technique

After taking permission from the ethical body of BHPI, the investigator was collected a list of people of Rana plaza victims. Researcher also observed the persons with disabilities who had survived after the breakdown. Those participants had fulfilled inclusion criteria they were the participants of the study.

### 2.6 Sample sizes

Sampling procedure for cross sectional study done by following equation-

$$n = \left\{ \frac{z - \frac{\alpha}{2}}{d} \right\}^2 \times pq$$

Here,

$$z - \frac{\alpha}{2} = 1.96$$

$$d = 0.05$$

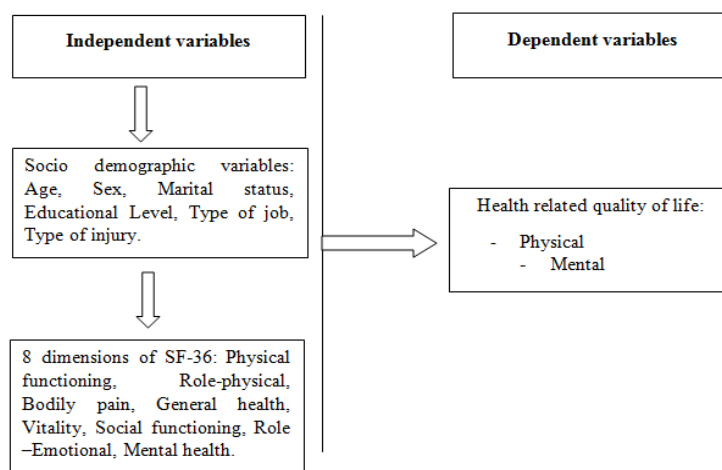
$$p = 0.84 \text{ (Liang, 2016).}$$

$$q = (1-p) = (1-0.84)$$

$$= 0.16$$

According to this formula of sample size calculation, the actual sample size was about 211 but due to the limitation of time 50 samples was collected as my target data because that number is very easy for me to collect and to analyse the data.

### 2.7 Variables:



**Figure 1:-Conceptual Framework.**

## 2.8 Inclusion Criteria

1. Rana plaza victims (male and female person with without disabilities)
2. Person with physical disabilities (permanent and temporary) is the participants of the study who are suffering from moderate to mild disabilities and working age people.

## 2.9 Exclusion Criteria

1. Mentally retard people
2. People with Speech problem prior to building collapse

## 2.10 Data collection instrument and tools

A questionnaire SF-36 and socio-economic informative questionnaire were used.

## 2.11 Measurement tools

A socio-demographical informative questionnaire was developed by researcher to collect data. A Standardized questionnaire/tool named the Short Form-36 (SF-36) is a 36-item questionnaire which measures Health Related Quality of Life (HQOL) across eight domains.

### 2.11.1 SF-36

The Short Form-36 (SF-36) is a 36 item questionnaire which measures Quality of Life (QOL) across eight domains, which are both physically and emotionally based and it is a structured, self-report questionnaire (Jenkins et al., 2014). The eight domains that the SF36 measures are as follows: physical functioning; role limitations due to physical health; role limitations due to emotional problems; energy/fatigue; emotional well-being; social functioning; pain; general health. The Test-retest reliability of sf-36 Bangla version has been tested and the value of Test- retest reliability (.94-1.0) (Walton et al., 2012).

## 2.12 Data collection procedure

Before data collection, researcher was first introduced himself to the participants & took verbal consent. Then provide written consent form to the participant, and after signed the consent form, data was collected through a questionnaire from the participants by face to face conversation. In the questionnaire, there was participant's demographic information including age, sex, educational level, marital status, previous occupation etc. along with questionnaire of SF-36.

## 2.13 Data analysis

After complete the initial data collection, every questionnaire was check again to find out any mistake or unclear information. Then data was analyzed through Statistical package of social science (SPSS) version 20 and data was levelled in Microsoft Excel worksheet and arranged in results. Then data was analyzed through descriptive statistics and descriptive statistics was used to fulfil research objectives.

## 2.14 Ethical considerations

The proposal of the dissertation was presented to the Institutional Review Board (IRB) of Bangladesh Health Professions Institute (BHPI). Ethical permission was taken from IRB to conduct the study. The whole process of this research project was done by following the Bangladesh Medical Research Council (BMRC) guidelines and World Health Organization (WHO) Research guidelines. Verbal and written inform consent was taken from every patient. And ensure every patient that they can leave any time during data collection. The researcher strictly maintained the confidentiality regarding participant's condition and treatment.

## Result:-

### 3.1 Sociodemographic Characteristics:

**Table 1:-**Sociodemographic Characteristics of the participants

<b>Age (mean): 32.74 years, SD±6.96</b>		<b>Sex</b>	
21-30 Years	22 (65%)	Female	30 (60%)
31-40 Years	22 (30%)	Male	20 (40%)
41-50 Years	5 (2.5%)		
51-60 Years	1 (2.5%)		
<b>Marital Status</b>		<b>Income/month:</b>	
Married	49 (98%)	<5000 tk	34 (68%)
Unmarried	1 (2%)	>5000 tk	16 (32%)
<b>Education</b>		<b>Living area</b>	
Illiterate	6 (12%)	Rural	30 (60%)
Primary education	34 (68%)	Urban	10 (20%)
SSC completed	9 (18%)	Semi urban	10 (20%)
HSC completed	1 (2%)		
<b>Occupation</b>			
Involved in Job	21 (42%)		
No Job involvement	29 (58%)		

**3.2 Injury type**

<b>Type of injury</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
Lower limb amputation	3	6%
Fracture	13	26%
Spinal cord injury	1	2%
musculoskeletal injury	32	64%
Others	1	2%

**Table 2:-**Type of injury of the participants**3.3 Physical functioning**

<b>Variables</b>	<b>Yes, limited a lot</b>		<b>Yes, limited a little</b>		<b>No, not limited at all</b>	
	Number	%	Number	%	Number	%
Vigorous activities	21	42%	26	52%	3	6%
Moderate activities	3	6%	33	66%	14	28%
Carrying heavy object	6	12%	29	58%	15	30%
Climb several stair	18	36%	26	52%	6	12%
Climb one stair	9	18%	25	50%	16	32%
Forward bending	17	34%	25	50%	8	16%
Walking more than a kilometre	15	30%	28	56%	7	14%
Walking several hundred kilometre	8	16%	26	52%	16	32%
Walking one hundred kilometre	4	8%	23	46%	23	46%
Personal care	1	2%	10	20%	39	78%

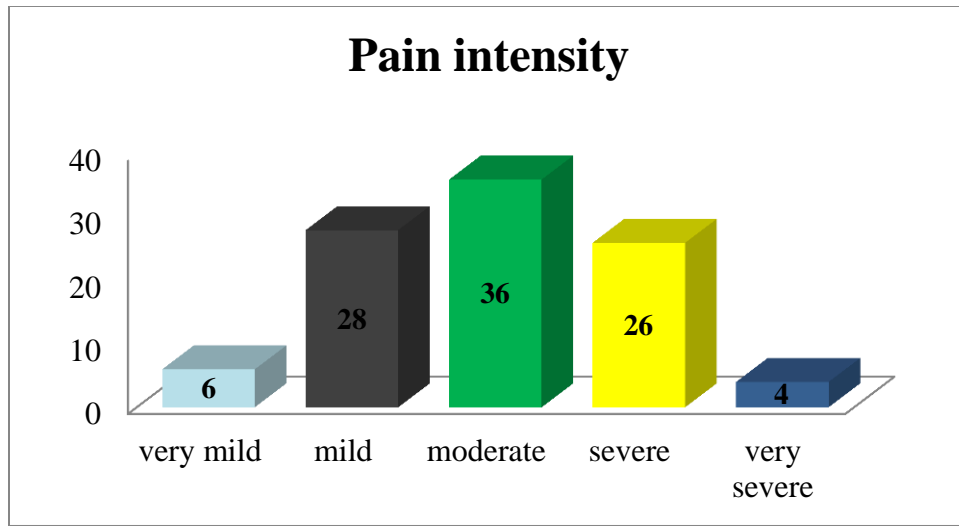
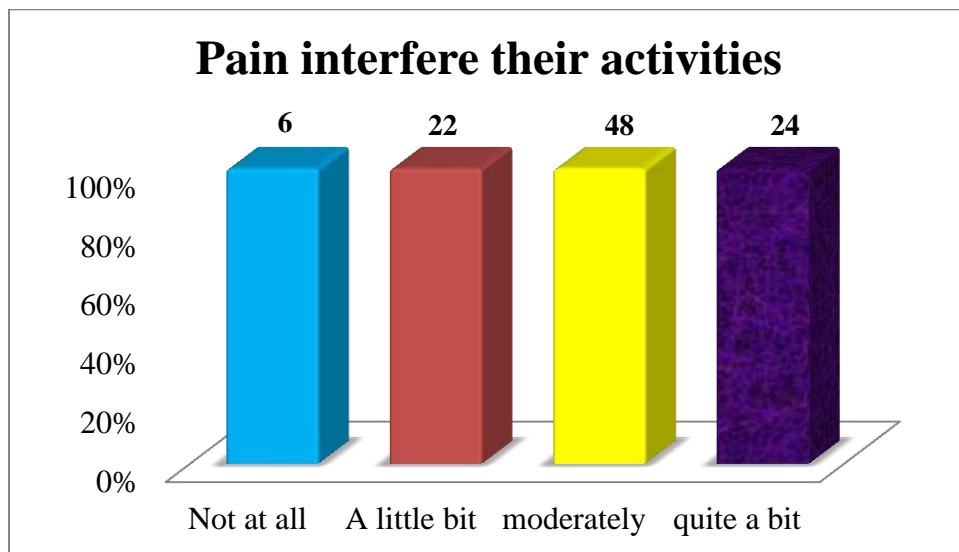
**Table 3:-**Physical functioning of the participants**3.4 Role physical**

<b>Variables</b>	<b>All of the time</b>		<b>Most of the time</b>		<b>Some of the time</b>		<b>A little of the time</b>		<b>None of the time</b>	
	Number	%	Number	%	Number	%	Number	%	Number	%

Cut down time	1	2%	7	14%	36	72%	6	12%	0	0
Accomplished less	1	2%	11	22%	32	64%	6	12%	0	0
Activity limited	1	2%	15	30%	30	60%	4	8%	0	0
Activity difficulty	1	2%	11	22%	36	72%	2	4%	0	0

**Table 4:-**Role of physical

### 3.5 Bodily Pain

**Figure 2:-**Pain intensity during last four weeks.**Figure 3:-**Pain interfere their indoor and outdoor activities.

### 3.6 Vitality

Variable	Most of the time		Some of the time		A little of the time	
	Number	Percent	Number	Percent	Number	Percent
Pep life	8	16%	32	64%	10	20%
Energy	7	14%	32	64%	11	22%

Worn out	20	40%	26	52%	4	8%
Tired	23	46%	23	46%	4	8%

**Table 5:-**Vitality of the participants**3.7 Social functioning.**

Variable		Number	Percent
Social extent	Not at all	6	12%
	Slightly	10	20%
	Moderately	24	48%
	Quite a bit	10	20%
Social time	Most of the time	9	18%
	Some of the time	30	60%
	A little of the time	9	18%
	None of the time	2	4%

**Table 6:-**Social functioning of the participants**3.8 Role emotional**

Variable	All of the time		Most of the time		Some of the time		A little of the time	
	Number	Percent	Number	Per cent	Number	Percent	Number	Percent
Cut down time	4	8%	11	22%	32	64%	3	6%
Accomplish less	3	6%	14	28%	30	60%	3	6%
Not careful	3	6%	14	28	28	56%	5	10%

**Table 7:-**Role of emotional of the participant**3.9 Mental health**

variable	Most of the time		Some of the time		A little of the time	
	Number	Per cent	Number	per cent	Number	Per cent
Nervous	14	28%	32	64%	4	8%
Down in	11	22%	34	64%	5	10%
Peaceful	8	16%	31	62%	11	22%
Depressed	17	34%	30	60%	3	6%
Happy	11	22%	27	54%	12	24%

**Table 8:-**Mental health of the participants**3.10 SF-36 scoring among the participants**

Scale	Minimum	Maximum	Mean	Std. Deviation
Physical function	25.00	100.00	54.5000	20.03
Role physical health	.00	75.00	45.7500	13.26
Role emotional	.00	75.00	75.4000	23.89
Vitality	40.00	80.00	55.7250	7.86
Mental health	40.00	80.00	56.9840	7.65
Social functioning	12.50	100.00	53.6000	18.62
Bodily pain	20.00	77.50	45.1500	17.03
General health	20.83	66.67	43.7500	12.23

**Table 9:-**SF36 scoring among the participant**3.11 Association between Sociodemographic variable and eight domains of SF-36:**

		Physical Functioning	Role Physical health	Role Emotion	Vitality	Mental Health	Social Functioning	Bodily Pain	General Health
Age	P-value	.512	.318	.073	.001	.250	.852	.966	.061
	Chi-	278.60	188.43	143.23	242.21	213.79	141.37	201.49	274.27

	value								
Sex	p-value	.852	.291	.590	.650	.777	.484	.699	.516
	Chi-value	9.048	11.703	4.645	6.877	6.439	7.50	9.048	11.107
Type of injuries	P-value	.888	.776	.318	.884	.961	.980	.990	.973
	Chi-value	43.50	29.34	26.71	26.22	25.73	17.78	28.06	31.00
Education	P-value	.041	.000	.001	.042	.031	.001	.062	.051
	Chi-value	59.248	66.842	60.21	59.22	59.01	60.21	6.89	11.10
Income	P-value	.001	.041	.004	.051	.610	.781	.074	.062
	Chi-value	58.21	59.22	31.23	9.02	28.41	30.01	11.26	27.40

**Table 10:-**Association between Sociodemographic variable and eight domains of SF-36

### Discussion: -

Socio-demographic characteristics are a strong predictor of perceived quality of life among survivors. Rana plaza disaster survivors' sex is an important factor of socio-demographic characteristics. Regarding the socio-demographic status, this study finding is similar to other study findings. Demographic data of survivors, after building collapse shows that among all of participants, most of the participants were (60%) female rather than male (40%). Hu et al. (2012) has revealed in his study that after any disaster the female exposure suffers a lot than male due to their physical structure and cultural aspect, in that study about 60% participants were female survivors.

One article showed that most of the respondents among the survivors surveyed are women. Out of the 1300 survivors surveyed, 35% were men and 65% were women. Majority of the respondents are young with 32% aged between 21-25 years and 30% between 26-30 years. Of them, 76% are married, 17% are single, 3% are widowed and 4% each are divorced and separated.

Zhang et al. (2012) has mentioned in their study that after SICHUAN earthquake in China; most of the survivors were females with fractures rather than male. In case of garments working sectors, females are highly getter than male workers. Therefore, the study participants are smaller than other study, thus why it does not match with other statistics of Bangladeshi garments sector. In case of their marital status, about 2% were unmarried, 98% were married. The number of married men and women worker with children are higher than no child workers (Monitoring the Rana Plaza Follow-ups 2013). In Bangladesh, one study in garments factory says that about 53% garments worker are married and secondly 36% are unmarried where divorce persons rate is 6% (Chowdhury & Ullah, 2010). Among all of the participants, about 12% participants have never attended on any formal education and 68% of the participant has completed primary education, 18% of the participant has finished their S.S.C level and 2% of the participant has completed their H.S.C level. In Bangladesh, the garments workers are poor and their educational qualifications are not significant (Bhuiyan, 2012). Chowdhury and Ullah, (2010) said that in Bangladesh, most of the garment workers' educational level is between class I-IV (38%) and between classes VI-X for about 28% in Chittagong district. Generally, the survivors' educational level is poor in fact they have shown risk taking behaviour for their livelihood but have also poor awareness about building collapse impact.

A survey was done by Action aid at 2015; here they found that 52 percent survivors got engaged in various types of wage and self-employment. 48 percent survivors claimed that they are currently unemployed. The previous (2015) survey found that 55 percent survivors were unemployed during the survey conducted, while 44 percent survivors were engaged in various types of wage and self-employment, and only 0.6 percent survivors claimed that they were not able to work.

Among the currently employed 21.4 percent are found to be working in garments factories, 23.2% are involved in petty business, while 16.8% are working as tailors. Additionally, 3.0% are running grocery shop, 4.2% are engaged in wage labor and 4.9% are engaged in agriculture. 2.9% are engaged in irregular works. Aside from these, survivors are engaged in other types of income generating activities as household help, salesperson, auto rickshaw driver, mobile phone repairing work etc. Therefore, large majority of the survivors are self-employed. Although the Rana Plaza collapse has compelled many survivors to seek employment in other sectors, still there is a flow of workers



resuming garment factories for work. Those who are unemployed cited physical weakness (56.5%) and mental weakness (34.1%) as the main reasons for being unemployed.

Among the 50 participants 42% of the participants are involved in job among them 68.1% were involved with self-employment and 38.1% worked in a non-government organization and 58% are struggling without any job due to poor financial support and physical impairments.

Among the participants most of the survivor's injury type was musculoskeletal 64%, lower limb amputee survivors were 6%, Fracture survivors was 26%, spinal cord injury survivors was 2% and 2% others survivors. In India, after earthquake, huge numbers of buildings were collapsed. It is found that most of the survivor (23%) was diagnosed with upper extremity fracture and about 18% are diagnosed with head injury. Therefore, the situations are little bit similar. On the other hand Yang (2013) state that female were get more injured than male workers.

In this study, for the eight subscales, total scores may range from 0 to 100. Each scales ranging from 0 (presence all problems) to 100 (no problems at all) with in the dimension (Roux et al., 2004). The physical component summery scores mean of physical functioning (54.50), Role of physical (45.75), Bodily pain (45.15), General health (40.20) and the mental component summery score is vitality (55.73), social functioning (53.60), Role emotional (75.40) and mental health (56.98). The lowest score indicate the poor quality of life and highest score indicate the good quality of life.

The score was lowest for the General health subscale and highest for the Role emotion subscale. The score for all subscales for participants with survivors were significantly different form age and sex of the individual. The three most affected subscales were role physical (45.75), bodily pain (45.15), general health (40.20) and the highest score for the role of emotion (75.40) subscale. (Lin et al., 2009) found their studies among the eight subscale the score is lowest for the physical subscale and highest for the physical functioning subscale.

Liang et al., 2014 found on their study after the disaster the mean and standard deviation was PF 49.10 and 25.21, RP 48.91 and 25.21, RE 51.88 and 36.74, MH 44.10 and 26.55, VT 45.06 and 26.36, SF 60.81 and 33.00, GH 32.63 and 21.56, BP 50.70 and 26.85.

In this study total participant was 50, among the participants 42% (n=21) had a lot of limitation in vigorous activities, 26% (n=52) had little limitation in vigorous activities and 6% (n=3) had no limitation in vigorous activities. The study also shows that 6% (n=3) had lot of, 66% (n=33) had little, 28% (n=14) had no limitation in moderate activities. 12% (n=6) had lot of, 58% (n=29) had little, 30% (n=15) had no limitation on carrying heavy objective. 36% (n=18) had lot of, 52% (n=26) had little and 12% (n=6) had no limitation on climbing several flights stairs, 18% (n=9) had lot of, 50% (n=25) had little, 32% (n=16) had no limitation on climbing one flights stairs. 34% (n=17) had lot of, 50% (n=25) had little, 16% (n=8) no limitation on forward bending, 30% (n=15) had lot of, 56% (n=28) had little and 14% (n=7) had no limitation on walking more than one kilometer. 2% (n=1) had lot of, 20% (n=10) had little and 78% (n=39) had no limitation on bathing or dressing by own. Here maximum physical functioning is 100.00% and minimum physical functioning is 25.00% and mean and standard deviation is 54.5 and 20.03.

Among the 50 participants, 2% (n=1) spent all of the time, 14% (n=7) most of the time, 72% (n=36) some of the time, 12% (n=6) a little of time to do their work or other activities, 2% (n=1) all of the time, 22% (n=11) most of the time, 64% (n=32) some of the time, 12% (n=6) a little time were given to accomplished less than they would like to do. This study also showed that, 2% (n=1) all of the time, 30% (n=15) most of the time, 60% (n=30) some of time, 8% (n=4) a little of time were limited in the kind of work or other activities. Here maximum role physical health is 75.00 and mean and standard deviation is 45.75 and 12.26.

Among the 50 participants 8% (n=4) all of the time, 22% (n=11) most of the time, 64% (n=32) some of the time, 6% (n=3) had cut down the most of on their activities. 6% (n=3) all of the time, 28% (n=14) most of the time, 60% (n=30) some of the time, 6% (n=3) had accomplish less activities. 6% (n=3) all of the time, 28% (n=14) most of the time, 56% (n=28) some of the time, 10% (n=5) had cut down the most of on their activities. Here maximum role of emotion 75.00% and minimum .00% and mean and standard deviation 75.40 and 23.89.

Among the 50 participants, they were pep life for most of the time 16% (n=8), some of the time 64% (n=32), a little of the 20% (n=10) and energetic for most of the time 14% (n=7), some of the time 64% (n=32), a little of the

time 22% (n=11). Worn out of the participants for most of the time 40% (n=20), some of the time 52% (n=26), a little of the time 8% (n=4). Among the participants 46% (n=23) most of the time, 46% (n=23) some of the time, 8% (n=4) a little of the time had been tired. Here maximum vitality 80.00% and minimum vitality 40.00% and mean and standard deviation 55.73 and 7.86.

The study shows that among the participants feel nervousness for most of the time 28% (n=14), some of the time 64% (n=32), a little of the time 8% (n=4). The participants feel down in dumps for most of the time 22% (n=11), some of the time 68% (n=34), a little of the time 10% (n=5). Peaceful for most of the time 16% (n=8), some of the time 62% (n=31), a little of the time 22% (n=11). Downhearted or depressed for most of the time 34% (n=17), some of the time 60% (n=30), a little of the time 6% (n=3). Happy for most of the time 22% (n=11), some of the time 54% (n=27), a little of the time 24% (n=12). Here maximum mental health 80.00% and minimum 40.00% and mean and standard deviation 7.65.

Among the 50 participants 12% (n=6) have no problem in social functioning, 20% (n=10) have slightly social participants, 48% (n=24) had moderately and 20% (n=10) had quite a bit problem in social participation. In social time about 18% (n=9) had most of the problem, 60% (n=30) had some of the problem, 18% (n=9) had a little of the time, 4% (n=2) had none of the time. This study shows that maximum social functioning 100.00% and minimum social functioning 12.50% and mean and standard deviation 53.60 and 18.62.

Among the 50 participants, 6% (n=3) had very mild, 28% (n=14) had mild, 36% (n=18) moderate, 26% (n=13) had severe, 4% (n=2) had very severe pain felt and pain interfere their indoor and outdoor activities 6% (n=3) had not at all, 22% (n=11) had a little bit, 48% (n=24) had moderately, 24% (n=12) had quite a bit during the past four weeks. Here maximum range of bodily pain 77.50% and minimum 20.00% and mean and standard deviation 45.15 and 17.03.

This study showed that among the 50 participants, 4% (n=2) had very good health, 50% (n=25) had good health, 46% (n=23) had fair health status. Here maximum general health 65.00% and minimum 10.00% and mean and standard deviation 40.20 and 13.54. Nuhu et al. (2013) has said that one-third of the participants had poor overall QOL at palliative care survivors with cancer. After Rana Plaza disaster the exposure that means the survivors level of health satisfaction has analyzed, Along all of survivors about 33.7% of participants are neither satisfied nor dissatisfied with their health satisfaction where 27.2% are satisfied with their health status and about 23.9% of participants are dissatisfied with their health status but only a few are very satisfied with their health status. Nuhu et al. (2013) 66% has said that reported poor health satisfaction in quality of life at palliative centre. Wang et al. (2010) mentioned that the quality of life for the person of traumatized disability has improved day by day with reducing anxiety and depression.

In Action aid 2015 they found that 78.8% survivors reported that their condition is more or less stable. 14.6% who reported that their condition is deteriorating listed headache, difficulty in movement, pain in hand and leg, back pain as some of the major problems.

Among the participants mean of the role emotion was 75.40 according to SF-36 this range was good and the mean physical functioning was 54.50, vitality was 55.73, mental health was 56.73, social functioning was 53.60 according to SF-36 this range was moderate score and the general health of participants mean was 40.20, role physical, bodily pain was 45.15 according to SF-36 this range was poor. So among the participants their physical health quality of life was poor and mental health quality of life was fair.

Yiang 2013 found on his research the HRQOL of earthquake is relatively poor, especially in the GH, MH, SF, VT and so on. He found on his research some factors that influence the HRQOL, which were health, gender, education, monthly income and age that significantly affect the HRQOL in survivors.

#### **Association between demographic factors and overall quality of life:**

##### **Association between Age and health related quality life**

Regarding survivors age, there was significant association between Rana Plaza survivors' age and the vitality of domains of SF-36. Tsai et al., (2007) has mentioned that the survivors' age and quality of life have significant association where the younger aged quality of life is good than older survivors.

**Association between sex and quality of life**

Study shows there is no significant association between survivor's sex and quality of life that. Ceyhan & Aykut, (2007) and Nuhu et al. (2013) have mentioned in their study that the male survivors have poor quality of life than females. In Asian context the males are the main income personnel for family members.

**Association between type of injury and health related quality of life**

There was no significant association between type of injury and health related quality of life.

**Association between Education and health related o quality of life**

Among the survivors there was significant association between education and quality of life. Regarding survivors who have educational background they have good physical functioning and health.

**Association between income and health related o quality of life**

Income is significantly associated with survivors HRQOL. Those incomes more their HRQOL is significantly good. Yiang 2013 found on his research the HRQOL is associated with income also.

**Conclusion: -**

Now-a-days, building collapse in Bangladesh is a significant and traumatic experience. Some risk factors such as gender, type of disabilities and diagnosis after the event can affect the HRQOL and health prospect with their physical, social, psychological and environmental aspect of survivors. Among the survivors their physical health is poor and mental health is fair. People are still struggling with their life in the community. Some people are who working on the community they are now still suffering post-traumatic stress. Though the governmental and non-governmental organization helped them lot but this is not sufficient for them. **Some of them requaire further treatmeant but they are not continuing thier treatment due to thier poor economical statusand this situation indirectly create a bad impact into their life. so the goverment and non-government organization should take necessary steps for provide support to the survivors and try to improve their health status to live with a quality full health within community.**

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**Conflict of interest:**

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