



An Investigation of Knowledge Regarding Common Ailments and Health Literacy Among University Students at Jamshoro

Muhammad Zaman Bhutto¹, Dr. Bhai Khan Shar¹

¹Lecturer, Centre of Excellence Art and Design, MUET, Jamshoro

²Director & Professor, Centre of Excellence Art and Design, MUET, Jamshoro

Abstract— This study is aimed at investigating the level of basic information about common ailments and health risk among university students (at tertiary level) from three different universities at Jamshoro in Sindh Pakistan. The study is survey based on a questionnaire collectively illustrating knowledge about a disease and health literacy such as 1. Causes, 2. Signs and Symptoms, and 3. Prevention. In total, there were 8 diseases (HIV, HPV, stress, food poisoning, hepatitis, malaria, pharyngitis, and depression) included in the survey. The reliability of the questionnaire was checked using Cronbach's alpha (0.973). The tool was administrated electronically through google forms for the collection of the data. In total, there were 187 participants who responded to the survey. The data was analyzed through descriptive analysis to get the frequencies of the responses by the participants. The data shows that students' knowledge about stress (77%), food poisoning (71%), and depression (76%) is high as compared to knowledge level about HIV (59%) and Hepatitis (60%) which is observed moderately high. Whereas, the knowledge level about malaria (56%) and pharyngitis (52%) is moderately low. The results reveal that the level of knowledge about 3 diseases (depression, food poisoning and stress) is high, with more than 70% correct answers, among the students from all three studied universities. Whereas, the knowledge about HIV, hepatitis, malaria, and pharyngitis is at moderate level with above 50% correct response rate. Most importantly, the awareness about only one infectious disease (Human Papilloma Virus) is found poor with almost 60% incorrect responses among the participants. The study proposes awareness campaign and sessions among students at university level through which they may develop their basic health literacy and knowledge about common ailments; and it might also have some impact on the current situation.

The study conclude that a significant majority of young generation requires an extensive health awareness campaign in all higher Educational institutes. The campaign is to be comprised of basic information of causes, symptoms and curing strategies on various identified potential ailments in young generation.

Keywords— Health, Education, Primary Students

I. INTRODUCTION

According to the statistics by WHO (World Health Organisation) country health profile the probability of dying before the age of 70 in Pakistan is 68% in male and 63% in female, which includes multiple reasons, but majority of the deaths occur due to various ailment and diseases.

Health education, from early 19th century, has remained the most importantly focused area having an exclusive body of 'knowledge, defined skills, experiences and a code of ethics' (Hussain & Mahmood, 2010). It is an active social and public service field which accepts various models and theoretical frameworks from associated fields and disciplines such as communication, media, medical and health sciences, education and training, and areas similar (Shirreffs, 1978). This blended version of academic has a significance role in the contemporary period (Hussain, Alamgir and Shahzad, 2015).

Education about health-related issues and their awareness basically focuses on the associated issues of individuals and also the social communities. The basis for it is a philosophy of 'Health Promotion for Illness prevention' (Halcomb, 2010). It is very essential to take the initiative for social awareness and education regarding health issues, diseases and ailments from the roots of the society for enhancing its effectiveness. The educational organization and institutions in a society can play a major role in this regard (Hussain and Mahmood, 2010). Initiating this cause from academic and educational institutions can help spreading it fast and effectively with long lasting effects. Providing this kind of education and awareness in schools, colleges, and universities mainly deals with students' health; and also focuses upon the seasonal diseases (i.e., influenza, gastroenteritis, sun stroke), infectious ailments (Pharyngitis, Laryngitis, Malaria, cholera, dengue), non-communicable diseases (Cardiac diseases, Alzheimer's, Asthma, Chronic Kidney Disease), sexually transmitted diseases (i.e., HIV, HPV, Hepatitis), which are most common diseases of the region (Government of Pakistan, 1988) unfortunately, the health education, debate, talk to young generation specifically about sexually transmitted diseases is a taboo in Pakistan. Neither parents, nor teachers, relatives or family members fail if ethically correct to talk about such issues with young mineable population.

Aligning such awareness and knowledge related to health issues and diseases with academia seems to be more effective (Hussain, Alamgir and Shahzad, 2015). This blending of academia and health education or awareness regarding health-

related issues has been proved effective in the development of students (Fullan, 2001), improved learning achievement of students (Koivusilta, Arja, & Andres, 2003); promoting a health environment (Benard, 2004); and increasing efficiency and productivity (Harris, Cohen, & Flaherty, 2008). This can also help in developing strong bond between academia and community.

The present study is based on exploring the areas related to health knowledge issues and health education needs for university students in the context of Pakistani Universities and Higher education institutions. The main purpose of this study is to explore and investigate the areas in which further public and social awareness is required in the domain of health literacy knowledge about diseases most commonly occurring in the community and the region (Pakistan); as a suitable social awareness campaign can be designed for enhancing the related awareness and literacy through education the students studying at tertiary level. The objective of this research as:

(1) To assess the knowledge about common ailments among university students to check, (2) To identify the ailments with poor knowledge among university students for designing a social and (3) awareness campaign.

II. METHODOLOGY

A. Research Design

A survey research design was employed for this research by following quantitative approach.

B. Population and Sample

A predetermined population for this research was the students of tertiary level, enrolled in the university situated at Jamshoro, Sindh- Pakistan. There are three major universities of Sindh (province) existed in Jamshoro the first for engineering and technological sciences (Mehran University of Engineering and Technology), the second for medical and health sciences (Liaquat University of Medical and Health Sciences) and the third is general category university offering courses from multiple disciplines (University of Sindh). These three university encompass a huge number of students from all over the country and also from some international countries (i.e., Saudi Arabia, Iran, U.A.E, Sudan, Egypt and others). Simple random sampling technique was decided for this study. A total number of 187 students from all the three universities-mentioned above, participated in the survey.

Table I shows the number of participants (students) from universities mentioned above separately as their affiliation to the university. In majority, 104 (55.6 %) students were from Mehran university of Engineering and Technology, Jamshoro, secondly 70 (37.4 %) students were from the University of Sindh, Jamshoro and finally the least number of the participants which is 13 and 7 % of the total sampling was from Liaquat University of Medical and Health Sciences, Jamshoro.

TABLE I. AFFILIATED UNIVERSITY

Universities	Frequency	Percent	Cumulative Percent
Mehran University of Engineering and Technology, Jamshoro	104	55.6 %	55.6 %
Liaquat University of Medical and Health Sciences, Jamshoro	13	7.0 %	62.6 %
University of Sindh, Jamshoro	70	37.4 %	100.0 %
Total	187	100.0 %	

Moreover, in Table II it shows the gender representation of the participants involved in the study. Out of 187 (overall) participants, 77 (41.2 %) students were male from all three universities combinedly whereas 110 which is 58.8 % of the total sample were female students.

TABLE II. PARTICIPANTS' GENDER REPRESENTATION

Gender	Number	Percent
Male	77	41.2 %
Female	110	58.8 %
Total	187	100.0 %

Furthermore, in terms of academic level the participants were also with random distribution which is shown in Table III in details. There were 100 students from 1st year and 2nd year equally whereas 38 students were from 3rd year and 43 were from fourth year. The number of students from 5th year was only 6, because most of the academic program at the universities are of 4 academic years.

TABLE III. PARTICIPANTS' ACADEMIC LEVEL

Level	Frequency	Percent	Cumulative Percent
First Year	50	26.7 %	26.7 %
Second Year	50	26.7 %	53.5 %
Third Year	38	20.3 %	73.8 %
Fourth Year	43	23.0 %	96.8 %
Fifth Year	6	3.2 %	100.0 %
Total	187	100.0 %	

The participants were from various academic disciplines, departments and fields of study. So, all the academic fields were decided to be categorized into two major groups of Non-health sciences and Biological and health sciences. Table IV shows the number of participants from these two major groups. Out of 187 students, 151 were from non-health sciences group and 36 were from biological and health sciences group.

TABLE IV. ACADEMIC DISCIPLINARY GROUP

Disciplinary Group	Frequency	Percent	Cumulative Percent
Non-Health Sciences	151	80.7 %	80.7 %
Biological or Health Science	36	19.3 %	100.0 %
Total	187	100.0 %	

C. Questionnaire

The instrument matching the needs for the study was not found in the existing literature, so it was decided to develop a new instrument which meets the requirement of the research and can provide information regarding the knowledge of the multiple disease among the students through a single tool.

The questionnaire was constructed following the information about the diseases through existing review of the literature, medical textbooks of clinical and hospital pathology, and by using the sources easily available through web for example: www.healthline.com, and www.webmed.com. There were 8 diseases (See in Table.VII) which were decided to be investigated through the tool, there fore the information regarding these diseases were collected from various sources was compiled and tabulated first. The information was categorized into 3 major components (collectively illustrating knowledge about a disease). 1. Causes, 2. Signs and Symptoms, and 3. Prevention. The knowledge of a disease was decided to be based on these components collectively.



For each disease the items were included in the questionnaire (representing all the three components: causes, signs & symptoms and prevention) and the number of items for each disease came up to be maximum of 10 and minimum of 9. All the items were closed ended with three optional responses of (Yes, No, and I do not know.).

A pilot study was conducted after the completed questionnaire involves to 30 participants. The reliability of the tool was checked using Statistical Package for Social Sciences (SPSS), and 0.916 Cronbach’s Alpha (high) reliability coefficient was achieved (shown in table.V).

TABLE V. RELIABILITY STATISTICS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.916	.903	78

Subsequently, after collecting complete data for the study from 187 participants, the scale reliability was checked again, and it showed enhanced results with 0.973 Cronbach’s Alpha (high) reliability coefficient (as shown in Table. VI).

TABLE VI. RELIABILITY STATISTICS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.973	.972	78

D. Data Collection

The questionnaire was converted to digital survey form using Google forms and was sent to the students through email and online study group along with the consent form. The total number of 187 participant responded from the three universities mentioned above. All the data was auto-managed through google spreadsheet.

E. Data Analysis

The collected data was transformed from the spreadsheets to SPSS for further analysis. The data was descriptively analyzed through SPSS to get the summarized describing of the demographic information of the participants. Furthermore, the data was analyzed through cross-tabs and chi-square to get the frequency and percentages of the responses.

III. RESULTS AND FUNDING

Table VII, the summary of the analyzed data of the participants responses about the knowledge and awareness of the diseases, shows that students’ knowledge about stress (77%), food poisoning (71%), and depression (76%) is high as compared to knowledge level about HIV (59%) and Hepatitis (60%) which is observed moderately high. Whereas, the knowledge level about malaria (56%) and pharyngitis (52%) is moderately low.

TABLE VII. STUDENTS’ CORRECT RESPONSE SHOWING KNOWLEDGE LEVEL ABOUT DISEASES

Disease	University	Causes	Signs & Symptoms	Prevention	Knowledge about the Diseases Over All
		Correct Responses Percentage			
1-HIV	MUET	54 %	42 %	58 %	Knowledge about HIV 59%
	LUMHS	77 %	69 %	72 %	
	UoS	61 %	53 %	41 %	
	ALL (Average)	64 %	55 %	57 %	
2-HPV	MUET	27 %	22 %	25 %	Knowledge about HPV 42%
	LUMHS	60 %	85 %	51 %	
	UoS	37 %	36 %	38 %	
	ALL (Average)	41 %	48 %	38 %	
3-STRESS	MUET	75 %	71 %	71 %	Knowledge about Stress 77%
	LUMHS	83 %	77 %	82 %	
	UoS	76 %	77 %	80 %	
	ALL (Average)	78 %	75 %	78 %	
4-FOOD POISONING	MUET	68 %	56 %	66 %	Knowledge about Food poisoning 71%
	LUMHS	90 %	81 %	80 %	
	UoS	77 %	60 %	64 %	
	ALL (Average)	78 %	66 %	70 %	
5-HEPATITIS	MUET	55 %	52 %	48 %	Knowledge about Hepatitis 60%
	LUMHS	79 %	73 %	56 %	
	UoS	67 %	64 %	53 %	
	ALL (Average)	67 %	63 %	52 %	
6-MALARIA	MUET	39 %	41 %	55 %	Knowledge about malaria 56%
	LUMHS	64 %	80 %	74 %	
	UoS	43 %	47 %	61 %	
	ALL (Average)	49 %	56 %	63 %	
7-PHARYNGITIS	MUET	30 %	36 %	43 %	Knowledge about Pharyngitis 52%
	LUMHS	73 %	82 %	77 %	
	UoS	39 %	41 %	49 %	
	ALL (Average)	47 %	53 %	56 %	
8-DEPRESSION	MUET	74 %	76 %	61 %	Knowledge about Depression 76%
	LUMHS	81 %	85 %	85 %	
	UoS	83 %	78 %	64 %	
	ALL (Average)	79 %	80 %	70 %	

Most importantly, it is revealed that students' knowledge about Human Papillomavirus (HPV) is significantly low which is worth notable finding in this study.

Furthermore, it is also observed that students' (affiliated with LUMHS) responses have shown high level of knowledge about all diseases included in the study; whereas students from University of Sindh and MUET have shown low level of knowledge about the diseases except stress, food poisoning and depression.

IV. DISCUSSION

The main purpose of this study was to investigate knowledge about 8 ailments and diseases (HIV, HPV, stress, food poisoning, hepatitis, malaria, pharyngitis, and depression) in undergraduate university students of Jamshoro from 3 universities. The knowledge is measured through including 3 factors (causes, signs and symptoms, and preventions) for each diseases or ailment. The responses of the questionnaire reveal that the level of knowledge about 3 diseases (depression, food poisoning and stress) is high, with more than 70% correct answers, among the students from all three studied universities. Whereas, the knowledge about HIV, hepatitis, malaria, and pharyngitis is at moderate level with above 50% correct response rate. Most importantly, the awareness about only one infectious disease (Human Papilloma Virus) is found poor with almost 60% incorrect responses among the participants. However, HPV is a global issue and is not a rare disease in Pakistan (Khan, Buksh, Rehman & Saleem, 2016). The previously conducted studies focusing the investigation of knowledge about HPV (Makwea, Anorlua, and Odeyemib, 2012) in Nigerian context (with 17.7% of correct responses), and (Rajiah, et al., 2015) in Malaysian context (with 27% of correct responses) have also indicated the lack of knowledge about HPV among university students which is comparatively less than the results of the current study on Pakistani undergraduate students from Jamshoro (with 42% of correct responses). Whereas, in a study conducted at Keele University England (Sherman et al., 2016) it is shown that the students are highly aware (with 75% of correct responses) of HPV knowledge; this might be because of large number of students from healthcare fields and disciplines.

The existing literature suggests that the early stage symptoms of HPV are invisible, and the young population involved in sexual activities are primarily affected with (Rajiah et al., 2015; Kim et al., 2015). Whereas, in this study majority of the participants (55%) shown unawareness of the signs and symptoms for the occurrence of HPV responding to the statement that appearance of warts on any part of the body indicates the HPV infection. The similar results were revealed in the study conducted in Pakistani context by Khan et al. (2016), which also matches the results with the current study regarding the awareness of the signs and symptoms of HPV among the participants.

In addition, the participants also shown very poor results regarding the awareness of the causes and threats of HPV infection. In response to the statement that HPV can spread through skin to skin contact, only (32%) participants responded correctly. Similarly, in response to the statement that HPV can

cause cancers majority of the students (65%) gave incorrect responses. Another important cause of HPV infection through sexual intercourse was also responded poorly by majority of the participants (68%).

Knowledge regarding preventive measures, the most important element of the knowledge regarding HPV infections, was also found very poor. Most of the participants (62%) refused the statement that latex protection during sex can prevent HPV infection. Information regarding the vaccination for preventing HPV was also found poor due to lack of knowledge among most of the participants (56%). This can also be due to threats of adverse effects of the vaccines or non-serious attitudes by the health-related professionals in Pakistan (Khan et. al., 2016).

These findings regarding the knowledge about common ailments and health literacy, in comparison with the studies conducted in developed countries, are very impecunious (Marlow et. al., 2013; Dodd et.al., 2014)

Upto Now, there have been various studies conducted to investigate and assess the knowledge about common ailments. Among them, the studies focusing HPV particularly indicate that the population from developed countries (Uzunlar, et al 2013; Bruni, et al 2010) have adequate knowledge than that of related to developing countries (Yu, Y. et al., 2016; Phianmongkhol, et al 2011). Thus, it is necessary to focus students regarding the awareness about common ailments and also knowledge about them including basic health literacy. Taken all together, the current study reflects that students are moderately less aware of common ailments and the majority of them has poor knowledge of HPV. The situation can be changed and made better through initiating awareness campaigns which is also proposed in the current study.

CONCLUSION

The overall results of this research showed the level of knowledge about common ailments among the participants is much less than required for seven ailments (HIV, stress, depression, food poisoning, hepatitis, malaria, and pharyngitis); whereas for only 1 infectious disease (HPV), the participants have very poor awareness. Students at university level need awareness campaign and session through which they may develop their basic health literacy and knowledge about common ailments. The campaign should mainly focus on prevention and also include the curing strategies.

REFERENCES

- [1] Benard, B. (2004). Resiliency: What we have learned. WestEd.
- [2] Bruni, L., Diaz, M., Castellsagué, M., Ferrer, E., Bosch, F. X., & de Sanjosé, S. (2010). Cervical human papillomavirus prevalence in 5 continents: meta-analysis of 1 million women with normal cytological findings. *Journal of Infectious Diseases*, 202(12), 1789-1799.
- [3] Dodd, R. H., McCaffery, K. J., Marlow, L. A., Ostini, R., Zimet, G. D., & Waller, J. (2014). Knowledge of human papillomavirus (HPV) testing in the USA, the UK and Australia: an international survey. *Sex Transm Infect*, 90(3), 201-207.
- [4] Government of Pakistan (1988). *Health technician's training guide: book II*. Lahore, Nusrat Printing Press.
- [5] Halcomb, K. A. (2010). *Health promotion and health education: nursing students' perspectives*. Doctoral Dissertations. Kentucky: University of Kentucky.

- [6] Harris, J. R., Cohen, P. L., & Flaherty, T. D. (2008). Eight elements of high school improvement: A mapping framework. *National High School Center at the American Institutes for Research*.
- [7] Hussain, I., & Mahmood, S. T. (2010). Practice Teaching or Internship: Professional Development of Prospective Teachers through their Pre-Service Training Programmes. *Journal of Educational Research (1027-9776)*, 13(1).
- [8] Shirreffs, J. H. (1978). A Survey of the Health Science Discipline — Its Relationship to Other Academic Disciplines. *J School Health.*, Vol. 48, pp. 330–336.
- [9] Hussain, I., Alamgir, M. A., & Shahzad, M. (2015). A Study of Health Education and Its Needs for Elementary School Students. *Journal on School Educational Technology*, 10(3), 26-37.
- [10] Khan, T. M., Buksh, M. A., Rehman, I. U., & Saleem, A. (2016). Knowledge, attitudes, and perception towards human papillomavirus among university students in Pakistan. *Papillomavirus Research*, 2, 122-127.
- [11] Kim, H. W., Park, S., Ahn, H. Y., & Park, E. J. (2015). The effects of an HPV education program by gender among Korean university students. *Nurse education today*, 35(4), 562-567.
- [12] Koivusilta, L., Arja, R., & Andres, V. (2003). Health behaviours and health in adolescence as predictors of educational level in adulthood: a follow-up study from Finland. *Social science & medicine*, 57(4), 577-593.
- [13] Maharajan, M. K., Rajiah, K., Num, K. S. F., & Yong, N. J. (2015). Knowledge of human papillomavirus infection, cervical cancer and willingness to pay for cervical cancer vaccination among ethnically diverse medical students in Malaysia. *Asian Pacific Journal of Cancer Prevention*, 16(14), 5733-5739.
- [14] Makwe, C. C., Anorlu, R. I., & Odeyemi, K. A. (2012). Human papillomavirus (HPV) infection and vaccines: knowledge, attitude and perception among female students at the University of Lagos, Lagos, Nigeria. *Journal of epidemiology and global health*, 2(4), 199-206.
- [15] Marlow, L. A., Zimet, G. D., McCaffery, K. J., Ostini, R., & Waller, J. (2013). Knowledge of human papillomavirus (HPV) and HPV vaccination: an international comparison. *Vaccine*, 31(5), 763-769.
- [16] Fullan, M. (2001). *The new meaning of educational change* (2nd ed.). New York: Teachers College Press.
- [17] Phianmongkhol, Y., Suwan, N., Srisomboon, J., & Kietpeerakool, C. (2011). Knowledge about human papillomavirus infection and cervical cancer prevention among nurses in Chiang Mai University Hospital, Thailand. *Asian Pac J Cancer Prev*, 12(3), 823-5.
- [18] Rajiah, K., Maharajan, M. K., Chin, N. S., & Num, K. S. F. (2015). Awareness and acceptance of human papillomavirus vaccination among health sciences students in Malaysia. *VirusDisease*, 26(4), 297-303.
- [19] Sherman, S. M., Nailor, E., Minshall, C., Coombes, R., Cooper, J., & Redman, C. W. E. (2016). Awareness and knowledge of HPV and cervical cancer in female students: A survey (with a cautionary note). *Journal of Obstetrics and Gynaecology*, 36(1), 76-80.
- [20] Shirreffs, J. H., & Dezelsky, T. L. (1979). Adolescent perceptions of sex education needs: 1972–1978. *Journal of School Health*, 49(6), 343-346.
- [21] Shirreffs, J. H., & Dezelsky, T. L. (1979). Adolescent perceptions of sex education needs: 1972–1978. *Journal of School Health*, 49(6), 343-346.
- [22] Uzunlar, Ö., Özyer, Ş., Başer, E., Toğrul, C., Karaca, M., & Güngör, T. (2013). A survey on human papillomavirus awareness and acceptance of vaccination among nursing students in a tertiary hospital in Ankara, Turkey. *Vaccine*, 31(17), 2191-2195.
- [23] Yu, Y., Xu, M., Sun, J., Li, R., Li, M., Wang, J., ... & Xu, A. (2016). Human papillomavirus infection and vaccination: awareness and knowledge of HPV and acceptability of HPV vaccine among mothers of teenage daughters in Weihai, Shandong, China. *PLoS one*, 11(1), e0146741.



Muhammad Zaman was born in February 1992 in a second largest city of Sindh, Hyderabad. Since his birth he has been residing in Hyderabad. He received his early education from Hyderabad and moved his graduation in Communication Design from center of Excellence Arts and design of MUET Jamshoro by securing First class. After

completing his B. Design in communication design.

He has served as Consultant Designer for various private organizations; Lets Learn, IWS, Some Private schools and Aga Khan Education Service Pakistan. He has been a well renowned Teacher for design and arts in Hyderabad, he owns his own academy to facilitate the interesting candidates in Arts He also served in national vocational Technical Training Commission as Instructor for Graphic Designer. Zaman has been key designer to design the full scale campaign for International water color Biennale. He has designed logos, pamphlets and advertising campaigns for various educational and social topics. His work/campaign on Baad-e-Saba is also well recognized among concerned organizations.

His recent research on an investigation of knowledge regarding common ailments and health literacy among university students is grossly engaged with the fundamental issues of students related with health. This research reveals very interesting facts and figures: many students know about common diseases but the precautions, preventions and treatments are unknown to them. Another interesting fact is that the students are unaware about the HIV and its causes and remedies. This study concludes by recommending a full scale awareness session and orientation regarding common diseases; HIV in particular.



Bhai Khan Shar lives in Jamshoro, Sindh, Pakistan and was born on 24th April 1960. He did his Bachelors in Architecture from Mehran University of Engineering & Technology (Muet), Jamshoro, Pakistan. From 1997 to 2000, he did a 3 years training course from the University of Newcastle upon Tyne, England. In 2002, he did PhD from the Faculty of Social Sciences, University of Newcastle upon Tyne, England.

He has served in various academic and administrative positions from BPS 17 to 21 for over 30 years. He has worked as an ARCHITECT at M/S Rizki and Company, Karachi, from 1st May 1987 to 15th December 1988 and then as a LECTURER Department of Architecture, Mehran University of Engineering and Technology, Jamshoro from 17th December 1988 to 30th May 1992. In 1992 to 2005, he worked as ASSISTANT PROFESSOR in the Department of Architecture, Mehran University of Engineering and Technology, Jamshoro. Currently working as PROFESSOR and DIRECTOR at the Centre of Excellence in Art and Design, Jamshoro. Some of his publications are: Shah, Sabeen, , Shar, BK, Khoso, AR, Akhund, MA and Soomro, Mehwish, Universal Accessibility: A Tool for Safe, Sustainable and Friendly Environment- A Case Study, European Journal of Advances in Engineering and Technology, 2018. Soomro, Mehwish, Shar, BK, Soomro, GM, Akhund, MA, Khoso, A.R, Assessment of Energy Performance of Courtyard in Sustainable Architecture; International Research Journal of Innovations in Engineering and Technology (IRJIET), Volume 2, Issue 6, pp 5-9, August-2018. Arisar, U., Talpur, M.A.H., Shar, B.K., Ali, M., & Khoso A.R.(2018) Influence of Design Characteristics on Walkability A Study on MUET Campus Jamshoro; International Research Journal of Innovations in Engineering and Technology (IRJIET) Volume 2, Issue 9, pp 13-16, November-2018.

Prof. Shar organised a 3-day workshop (Techo-91) on Renewable Energy Resources at the Mehran University of engineering and Technology, Jamshoro, in 1991. He also organised 3-day Exhibition and Parents Day (April 2006) at the Mehran University of Engineering and Technology, Jamshoro. He has also conducted research works at different levels such as: Dissertation/ Thesis Written at undergraduate level: Housing Society in Hot and Dry Climate of Sukkur, and at PhD Level: The title of the dissertation was: “Application of Information Technology to improve the design process in the construction sector of Pakistan”. He also supervised several thesis at undergraduate level including Revitalisation of Mohenjodaro, Designing and planning of office building, for a District Management Group.