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Leisure and Psychological Well-being of the Elderly: Nexus of Mass Media and Modern Technology

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Abstract

This paper attempts to analyze elderly psychological well-being in terms of modern technology and mass media in Pakistan. As the latest century witnessed phenomenological growth of technological advancement and the addition of scientific knowledge that changed the health of Pakistani people as well as in all over the world. Several number of social workers and sociologists are working in the field of elder care. An explanatory quantitative study was conducted with 520 elder people interviews. They were drawn from urban localities of the Punjab province by using a proportionate random sampling technique and a survey method was used as a technique of data collection. The study showed that both modern technology and mass media are positively associated with leisure cum recreational activities, regardless of individual and household characteristics. It has similar positive effects of technology and media on progressive views regarding elderly psychological well-being, and these effects largely persist after controlling for recreational activities. Psychological well-being and recreation activities, together with mass media and technological development, have brought several new challenges to the elderly in Pakistan.

Keywords: *Psychological Well-being, Leisure Activities, Mass Media, Modern Technology, Elder Care.*

1. Introduction

The latest century witnessed phenomenological growth of technological advancement and the addition of scientific knowledge that changed the health of Pakistani people as well as all over the world (Creech, 2019; Dey & Desai, 2019; Hilt & Lipschultz, 2016; Lee, Lee, & Park, 2014; Shoaib, 2021). These changes in health have also been observed in terms of the balance of global powers among less developed and high-developed countries of the world (Ahmad, Shoaib, & Abdullah, 2021; Merkel, Heinze, Hilbert, & Naegele, 2019). For Pakistan, it brought abrupt changes in all facades of life includes changes in family attitudes, recreational activities (Abdullah & Shoaib, 2021; Bhamani, Khan, Karim, & Mir, 2015) and elderly psychological well-being through the use of modern technology (Sverre, Solbrække, & Eilertsen, 2014) and mass media exposure (Cornejo, Tentori, & Favela, 2013; Shoaib & Abdullah, 2020). It is pertinent here to mention that several social workers and sociologists are working in the field of elder care as per available resources in all over the world generally and in Pakistan specifically.

Further, Complex changes in the social structure and function in developed and developing areas lead toward modernizing norms and values (Saigol, 1997; Shoaib, Shaukat, Khan, & Saeed, 2013). Similarly, people prefer to live in group life in this modern era (Hossen, 2012; Shoaib, Latif, & Usmani, 2013). Consequently, people adopt new trends, traits, technologies, and trends, which are given accordingly to the global perspective (Altman, Lawton, & Wohlwill, 2013; Anwar, Shoaib, & Javed, 2013; Bhamani et al., 2015; Creech, 2019). In the modernization world, traditional-indigenous

techniques and knowledge put aside to the application of scientific knowledge borrowed mainly from the Western countries (Altman et al., 2013; Bhamani et al., 2015; Creech, 2019; Holmström & Korpela, 2019; Horne, Skelton, Speed, & Todd, 2013; Hossen, 2012; Næss & Vabø, 2014; Shoaib, Munir, Masood, Ali, & Sher, 2012; Sverre et al., 2014; Velasco-Gonzalez & Rioux, 2014; Victor, 2014). Furthermore, people accept these new techniques and knowledge because of progress is necessary, beneficial for society and as well as for the individual (Merkel et al., 2019; Shoaib, Bilal, Iqbal, Hassan, & Sher, 2012; Victor, 2014; Yaseen & Zaman, 2017).

Hence, the current study is focused to analyze psychological well-being and recreational activities of elder people in Pakistan in terms of social work perspectives. Moreover, it is also focused on the use of technology and mass media intervening in the life of elder people.

2. Literature Review

A number of studies reported that media and modern technology is an extremely powerful tool for restructuring the social relationship among all members of society (Albert, 2014). It has also impacted the socio-recreational aspects of developing societies including Pakistan (Shoaib, Usmani, & Ali, 2022). Further, empirical evidence also reported that media and technology affects all aspects of life such as socio-cultural, familial and recreational matters (Anwar, Shoaib, & Mustafa, 2022; Creech, 2019; Francis, Ball, Kadylak, & Cotten, 2019; Merkel et al., 2019). As Pakistan is a traditional society and people have adhered with the conventional norms and values. However, these were reshaped with the modern world (Bhamani et al., 2015; Næss & Vabø, 2014; Shoaib, Rasool, & Anwar, 2021). On the one hand, these modern values diminish the socio-economic status of the elderly (Alam, Ibrar, & Khan, 2016); while on the other hand, new techniques are introduced that raise the living standards of elder people.

Furthermore, in the larger context, media, and modern technology inspired the entire life of human beings and their surrounding directly or indirectly (Li, Jiang, & Zhang, 2019; Pistoia et al., 2019). Moreover, it has been very difficult for elders to accept the new modern norms, values and are between modernity and traditions that make them isolated in the community (Bamidis, Ziefle, & Maciaszek, 2019; Grossi, Lanzarotti, Napoletano, Noceti, & Odone, 2019; Woll & Bratteteig, 2019). Likewise, the increasing rate of urbanization in developed and under-developed countries has also been shaken the elder's life (Dey & Desai, 2019; Francis et al., 2019; Merkel et al., 2019). In the current era, in urban life, division of labor based on age is the entire change that influences the traditional power and social status of the elderly (Altman et al., 2013; Creech, 2019). The individualistic approach in the urban areas give rise to isolation in society in general and family in particular in terms of older (Hossen, 2012).

Similarly, mass media and modern technology, in the adaptation process within the social structure, helps to accept the changing role and status of elders, women and other family members' interpersonal relationships in the modernize world (Chou, Lai, & Liu, 2013; Hilt & Lipschultz, 2016). They fasten both generations such as children, who hold modern values and parents who stick with traditional norms (Cornejo et al., 2013). It takes time to change human behaviour and family provides facilitations to adopt new trends of life (Li et al., 2019).

As Lee et al. (2014) reported that the media reforms laws and policies, family norms and values that are not only acceptable for the policymakers but above all to the families living in the urban setup. Conversely, Grossi et al. (2019) argued that media educate society at large for the psychological well-being of its associates in general and elderly in particular. Further, it aims in changing the behaviors and attitudes to the democratic values among the members of the family from the traditional authoritative approach (Li et al., 2019). Moreover, Dey and Desai (2019) pointed out that it prevails

and sensitizes Government and Non-Governmental Organizations for constructing such policies that upheld the elderly wellbeing in the community.

2.1 Hypothesis of the Study

I formulate the following hypothesis concerning recreational activities:

Hypothesis 1. Mass media attitude is supportive of recreational activities among elder people.

Hypothesis 2. The use of modern technology has a direct effect on recreational activities.

Furthermore, towards elderly psychological well-being, our hypotheses are as follows:

Hypothesis 3. The use of modern technology is associated with increased awareness of elderly psychological well-being.

Hypothesis 4. A stronger mass media attitude will be positively associated with elderly psychological well-being.

Hypothesis 5. The hypothesized effects of favorable modern technology attitude and mass media attitude on progressive elderly psychological well-being will be mediated by recreational activities among elder people.

3. Material and Methods

I used the representative data collected for quantitative survey form elder people having age 60 years or above the number of years. This survey was carried out in two urban areas of Punjab province i.e. Lahore and Faisalabad. The rational to select urban localities was based on the work and practices performed by sociologists and social workers for elder care to create awareness regarding their health care practices. These two cities are selected based on randomization-lottery method. I prepared the list of cities in the Punjab province considering the older people health issues specifically psychological well-being. As in Pakistan, elder people are facing challenging environment for their survival in urban localities. Further, these are two middle-class urban settings. Moreover, survey method was opted based on quantitative approach and study design to collect data at large level. A sample of 520 older people was selected using proportionate random sampling technique. Moreover, the sample was calculated by using sample size determination formula (Yamane, 1967). The rationale to select representative sample was based on the availability of sampling frame. The complete list of older people (having age 60 years and above) was available at concerned union councils. Likewise, statistical analysis was employed to test the hypothesis. A self-administered attitudinal scale was developed to measure the response of the respondents. All the respondents were informed in terms of confidentiality of data and ethical considerations through informed consent form. The scale was consisted on the items. Its validity and reliability was checked by employing Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) statistical analysis. Only the confirmed factors was used in the model for further prediction. Similarly, a pretesting was also done on randomly selected 30 respondents and the values of Cronbach's alpha was ranging from 0.72 to 0.84. The proposed model was tested by employing the Structural Equation Modeling (SEM) technique to draw results and conclusion.

4. Results

The socio-economic characteristics of the respondents were based on their gender i.e. male and female and belonged to nuclear and extended family residing in urban areas. Their educational qualification was ranging from illiterate to master levels in these largely middle-class communities. Family monthly income of the elder people was above 40,000 in Pakistani rupees and had a minimum of three and maximum of 12 children in number. Further, the results of confirmatory factor analysis provided as under;

Table 1

Confirmatory Factor Analysis of Mass Media Exposure and Modern Technology

Mass Media Exposure	Parameter Estimates	Standard Error	T Statistics	Prob. Level
(MMEX)-1->[Mass media provides knowledge about]	0.167	0.059	2.823	0.005
(MMEX)-2->[Media influence norms and values]	0.238	0.058	4.098	0.000
(MMEX)-3->[It provides information about new technology]	0.364	0.043	8.487	0.000
(MMEX)-4->[Mass media plays important role in highlighting social issues in society]	0.467	0.054	8.594	0.000
(MMEX)-5->[Mass media is promoting violent behavior among youngsters.]	0.299	0.064	4.709	0.000
(MMEX)-6->[Mass media has changed the world into global village]	0.337	0.051	6.575	0.000
Total number of observations = 520			Joreskog GFI 0.955	
Modern Technology				
(MTEC)-1->[Computers are important components of modern living]	0.380	0.044	8.722	0.000
(MTEC)-2->[Use of internet is good for knowledge sharing]	0.415	0.043	9.610	0.000
(MTEC)-3->[Modern technology helps to obtain multiple crops in a year]	0.335	0.050	6.767	0.000
(MTEC)-4->[Use of modern tool for cultivation increases yield]	0.388	0.047	8.200	0.000
(MTEC)-5->[Use of mobile phone reduces distances and facilitates social contacts]	0.267	0.052	5.095	0.000
(MTEC)-6->[It is the modern technology that is improving the living standard]	0.391	0.055	7.131	0.000
Total number of observations = 520			Joreskog GFI 0.962	

Table 1 presents confirmatory factors analysis results. Here, model estimates of mass media exposure & attitudes show that all the items used in the interview questionnaire are significant and confirmed as per prob. level and GFI (0.955) value and model to be good while total observations were 520. This table also describes model estimates of modern technology. Different items in the survey were used to measure modern technology attitudes and confirmatory factor analysis presents that all the factors of modern technology attitudes are significant having Joreskog GFI (0.962) calculated value and model to be good.

Table 2

Confirmatory Factor Analysis of Recreational Activities and Elderly Well-Being

Recreational Activities	Parameter Estimates	Standard Error	T Statistics	Prob. Level
(REAC)-1->[Visiting to parks is an important part of recreational activity]	0.516	0.050	10.320	0.000
(REAC)-2->[Family get together creates cohesion among relatives]	0.437	0.048	9.116	0.000
(REAC)-3->[Participation in sports is essential for healthy living]	0.301	0.042	7.246	0.000
(REAC)-4->[Recreational activities are the important need for your mind]	0.371	0.040	9.201	0.000
(REAC)-5->[Recreation on daily basis makes family life more cheerful]	0.583	0.051	11.355	0.000
Total number of observations = 520		Joreskog GFI 0.989		
Elderly Well-being				
(EDWB)-1->[Efforts should be made to provide clean housing environment for elderly]	0.389	0.035	11.069	0.000
(EDWB)-2->[Family matters should be settled through mutual discussion by spouse]	0.435	0.040	10.778	0.000
(EDWB)-3->[Religious education is very important for elderly care]	0.399	0.029	13.914	0.000
(EDWB)-4->[Love and care are important part of elderly care]	0.488	0.032	15.336	0.000
(EDWB)-5->[Healthy environment is very important for elderly care]	0.448	0.034	13.150	0.000
(EDWB)-6->[Family gives proper attention to elderly care]	0.451	0.036	12.607	0.000
Total number of observations = 520		Joreskog GFI 0.983		

Table number 2 shows the results of model estimates of the recreational activities of the respondents. Different survey items were used to measure the recreational activities of the respondents. The confirmatory factor analysis presents that all the factors of recreational activities are confirmed as per Joreskog GFI (0.989) value and model to be good. Further, this table elaborates on elderly psychological well-being as a dependent variable. Here, again different survey items were used to confirm through confirmatory factors analysis. All the survey items of elderly psychological well-being variables are confirmed as per prob. level and Joreskog GFI (0.983) calculated value and model to be good.

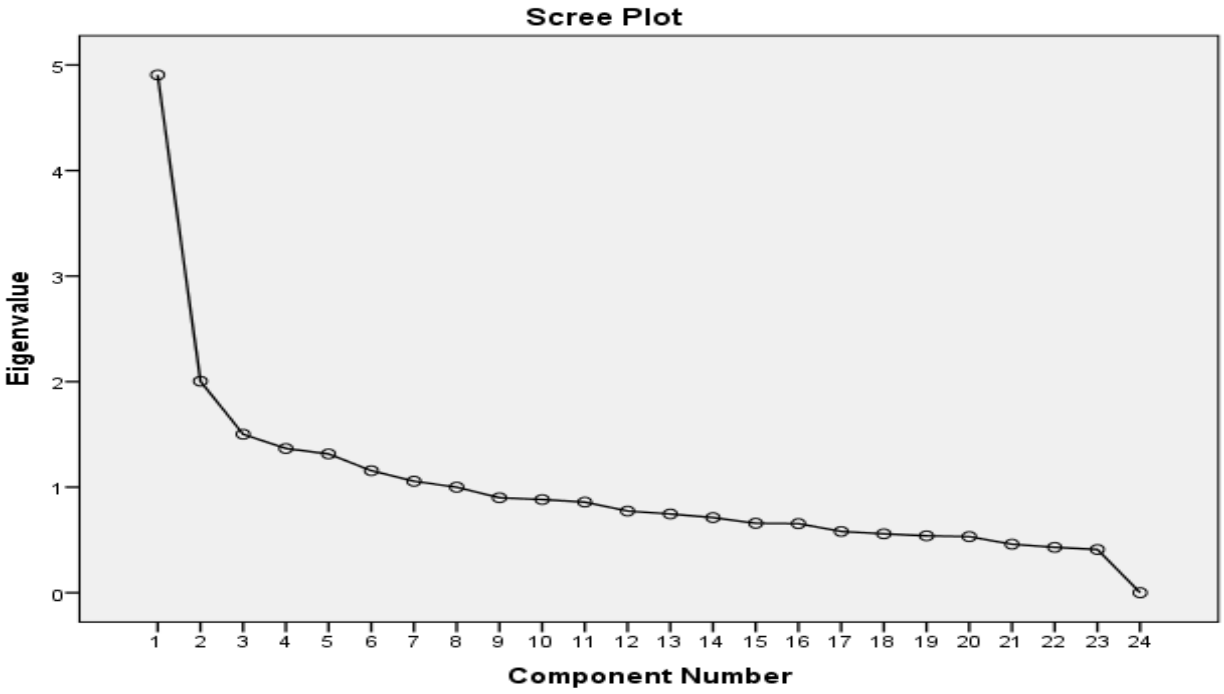

Figure 1. *Scree Plot Depicting Component Number and Eigenvalue*

The results also indicate a Pearson correlation statistical test. As per the calculated values of the test, age has a negative significant correlation with elderly psychological well-being, mass media exposure & attitudes, modern technology, and gender. The family number of children has the same negative significant correlation with elderly psychological well-being, mass media exposure & attitude and as well as gender. The rest of the variables has a positive significant correlation with each other.

Further, I applied Structure Equation Modeling (SEM) to test the hypothesis. SEM is a powerful technique, combine complex path models (Guo et al., 2019) with latent variables that specify confirmatory factor analysis, regression models and complex path model. The SEM model described as (Geiser, Hintz, Burns, & Servera, 2019):

$$\eta = \beta\,\eta + \Gamma\,\xi + d_1 \quad (1)$$

$$X = \Lambda_x\,\xi + E \quad (2)$$

$$Y = \Lambda_y\,\eta + w_1 \quad (3)$$

Where, X=[GEDR AGEY TONC FMTY]$_{520\times4}$ X is a matrix of independent variables, Y=[EDWB]$_{520\times1}$ is a matrix of the dependent variable, η =[REAC]$_{520\times1}$ η is a matrix of an endogenous variable, ξ =[MTEC MMEX]$_{520\times2}$ is matrix of exogenous variables, Λ_y =[λ_{y1} λ_{y2} λ_{y3} λ_{y4} λ_{y5}]$_{5\times1}$, Λ_x =[λ_{x1} λ_{x2} λ_{x3} λ_{x4} λ_{x5} λ_{x6} λ_{x7}]$_{7\times1}$, β =[β_1 β_2 β_3 β_4 β_5 β_6 β_7]$_{7\times1}$ are the matrices of path coefficients and (d_1, E, w_1) are vectors of error terms.

In the light of the SEM model, I proposed models (4-6); the outcome is an ordinal scale that measures the respondent's attitudes to elderly psychological well-being. The scale is based on the items elaborated in table number III. Here, the predictors and controls are the same as in the first model. Finally, in the third model, I add the scale of recreational activities to test whether these attitudes mediate the effects of the two predictors-mass media exposure & attitude and modern technology.

REAC = β_1(MTEC)+ β_2(MMEX)+ β_3(GEDR)+ β_4(AGEY)+β_5(TONC)+ β_6FMTY+d_1 (4)

EDWB = λ_{y1}(MTEC)+ λ_{y2} (MMEX)+ λ_{y3} (GEDR)+ λ_{y4} (TONC)+ λ_{y5}(FMTY)+ W_1 (5)

$$EDWB = \lambda_{x1}(REAC) + \lambda_{x2}(MTEC) + \lambda_{x3}(MMEX) + \lambda_{x4}(GEDR) + \lambda_{x5}(AGEY) + \lambda_{x6}(TONC) + \lambda_{x7}(FMTY) + W_1 \quad (6)$$

After estimation of model's parameters by using latest version of SPSS, STATISTICA and AMOS, the resulting model implied covariance matrix that compared to data based covariance matrix.

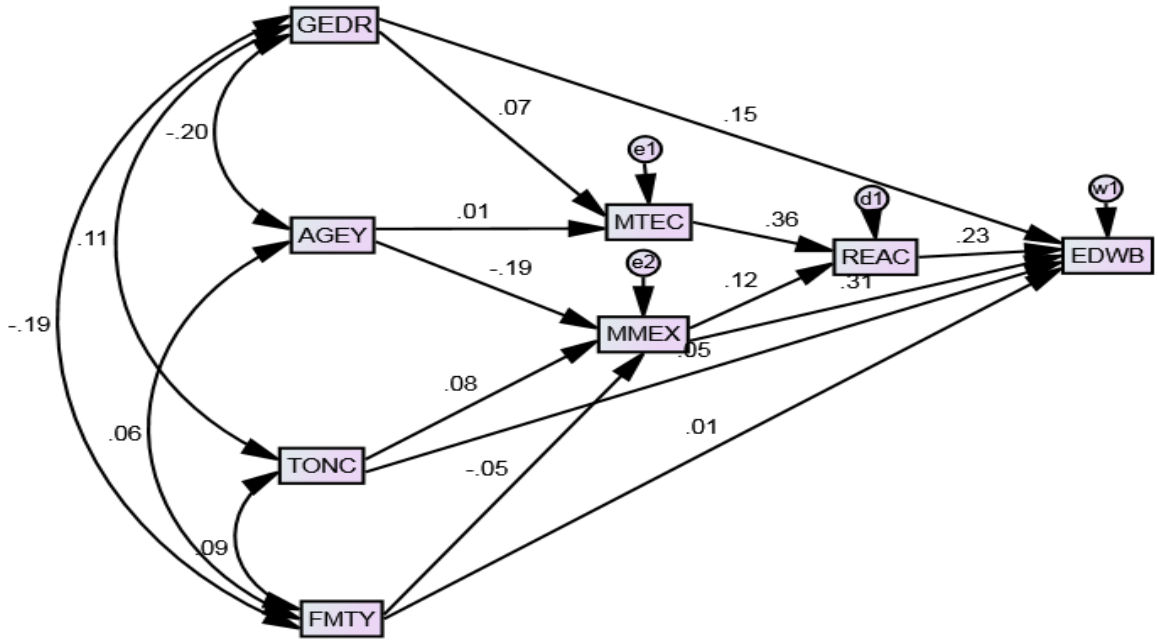

Figure 2. *Showing Variables Relationship of SEM*

I fit Structure Equation Model (SEM) to test the hypothesis. In the first model, the outcome is what I define as recreational activities. This predictor is an ordinal scale that was constructed using the items from the survey shown in table 2. The predictors are two ordinal scales – attitudes toward mass media exposure and modern technology. The scale of attitudes toward modern technology is constructed from the items of the survey described in table number 1. The scale of mass media exposure & attitudes is constructed using the survey items depicted in the same Table 1. The control variables are the respondent's gender, age, number of children and family type (extended vs. nuclear).

Table 3 and figure number 2 presents the results of the Structural Equation Modeling predicting recreational activities. The results support Hypothesis 1: favorable mass media attitudes are positively associated with recreational activities. Elder people living in two urban localities of the Punjab province are using mass media and it is affecting their recreational activities in a positive way. Moreover, higher usage of mass media enhance their recreational activities. Furthermore, the argument is supported by the calculated value of p-0.000 (S.E. = .039 & path coefficient = .112). This is accordance with the findings of Chou et al. (2013) and (Cornejo et al., 2013).

Moreover, the results also support Hypothesis 2: the use of modern technology has a positive effect on recreational activities among the elderly. Respondents are using modern technology and it is affecting on their reactional life. This hypothesis is supported and accepted with p-value of less than 0.05 level

of significance (S.E. = .038 & path coefficient = .343). Furthermore, In coincidence with the findings of Grossi et al. (2019) that usage of modern technology is enriching everyday recreational activities of elder people.

Table 3

Regression Weights, Variance and RMR, GFI

Regression Weights			Path Coefficients	S.E.	C.R.	P
MMEX	<---	TONC	.097	.052	1.879	***
MMEX	<---	AGEY	-.049	.011	-4.383	***
MTEC	<---	GEDR	.383	.256	1.496	.135
MTEC	<---	AGEY	.002	.012	.167	.867
MMEX	<---	FMTY	-.241	.199	-1.207	.227
REAC	<---	MTEC	.343	.038	8.970	***
REAC	<---	MMEX	.112	.039	2.882	***
EDWB	<---	MMEX	.324	.042	7.722	***
EDWB	<---	GEDR	.882	.240	3.680	***
EDWB	<---	FMTY	.069	.197	.353	.724
EDWB	<---	REAC	.256	.044	5.877	***
EDWB	<---	TONC	-.057	.051	-1.132	.257
Covariance			Estimate	S.E.	C.R.	P
TONC	<-->	FMTY	.135	.064	2.107	***
AGEY	<-->	FMTY	.378	.293	1.288	.198
AGEY	<-->	GEDR	-1.103	.245	-4.497	***
TONC	<-->	GEDR	.131	.052	2.528	***
FMTY	<-->	GEDR	-.061	.014	-4.352	***
RMR, GFI						
Model			RMR	GFI		
Default model			2.928	.874		
Saturated model			.000	1.000		
Independence model			3.226	.762		
Recommended				≥.80		

Furthermore, the results of SEM predict progressive elderly psychological well-being from mass media attitudes and modern technology attitudes, while controlling for the same characteristics as in the previous model. Here again, favorable modern technology attitudes have a significant net positive effect on psychological well-being of elder people, yielding support for Hypothesis 3. Therefore, modern technology is promoting psychological well-being of elder people in both urban settings (Lahore and Faisalabad). Moreover, these results are also supported by Woll and Bratteteig (2019).

Likewise, the effect of mass media attitudes is positively and statistically highly significant to promote psychological well-being of elder people supporting Hypothesis 4. Finally, it also displays the results of a model that tests for mediating effects of recreational activities on elderly psychological well-being. The effects of modern technology attitudes and mass media attitudes diminish in magnitude when the recreational activities scale is included. While modern technology attitudes remain highly significant. These results are also supported with the findings of Alam et al. (2016) and Hilt and Lipschultz (2016). In comparison, the effect of mass media attitudes is similar highly significant. Hence, Hypothesis 5 is highly supported. Therefore, modern technology and mass media both promoting psychological well-being of elder people through the mediation of recreational activities. This hypothesis is also supported by number of researches on supported technological tools for elder persons (Dey & Desai, 2019),

positive and supportive technology for elderly (Dey & Desai, 2019; Woll & Bratteteig, 2019), social media for the elderly (Chou et al., 2013), and social media-family connectedness for the elderly (Chou et al., 2013).

5. Discussion

The results of this paper are positively supported to the elderly psychological well-being by the effects of the usage of modern technology attitudes and mass media attitudes through the mediation of recreational activities in two urban areas of Pakistan. Elderly people have supportive psychological well-being including socio-psychological by the effects of the use of technology and media through the mediation of recreational activities. However, family members are trying to support their elders in all aspects of life by providing socio-moral support, financial & socio-psychological support (Alam et al., 2016), physical support (Horne et al., 2013) and fulfilling their basic necessities of life within the vicinity of urban localities. Furthermore, family members are also supporting their elders and providing all facilities to them at the time of need (Chou et al., 2013; Dey & Desai, 2019).

The psychological well-being of elderly shifted away from absolute values and norms by rationality, tolerance, trust, and participation in the current era of modern contingencies of life (Alam et al., 2016). In addition to it, modernization also brings change in social organizations and institutions that affect the elder person's status (Grossi et al., 2019). Likewise, awareness and adaptation of modern technology appliances raise the living standards of the elderly in urban localities (Bamidis et al., 2019; Grossi et al., 2019; Merkel et al., 2019).

Access of people to mass media including print and electronic, change their thinking patterns to approach modernity for psychological well-being (Creech, 2019). Similarly, elder people are trying to change their lives, use mass media as a source of entertainment and knowledge, have access to information and update themselves about the world (Francis et al., 2019). In the name of modernization, mass media promotes western culture all over the world that penetrated the centuries-old traditions (Saigol, 1997). In Pakistan, including the other part of the world, modernization brings many changes in the society pattern structure and consequently in behaviors and attitudes of individuals in the context of elderly psychological well-being (Alam et al., 2016).

In several societies, people give extreme respect to elder people in all sphere of their lives and consider them as a symbol of wisdom and authority (Alam et al., 2016; Altman et al., 2013; Bhamani et al., 2015; Gibson & Singleton, 2012; Shoaib, Khan, & Khan, 2011). However, modernization has also been changing the elderly status in the country (Saigol, 1997). Similarly, modernization decreases the social, economic and political position of elder persons, as the traditional norms and values changed (Altman et al., 2013; Bamidis et al., 2019). Further, modern technology creates several recreational activities for the masses in general and the elderly in particular. Mass media and predominantly the electronic media educate and aware the senior citizen regarding their health, psychological well-being and make them an effective healthy member of the society (Albert, 2014; Firdaus, 2017; Hossen, 2012).

6. Conclusion

The overall conclusion that I reach from the findings is that there is significant positive effects of mass media and modern technology on psychological well-being of elder people through the mediation of recreational activities. However, the latest century witnessed phenomenological growth of technological advancement and the addition of scientific knowledge that changed the health of Pakistani people in general and elder people in particular. Thus, this study asserts that both modern technology and mass media are positively associated with leisure cum recreational activities, regardless of individual and household characteristics. Moreover, it has similar positive effects of technology and media on progressive views regarding elderly health and psychological well-being. Likewise, these effects also largely persist after controlling for recreational activities. Psychological well-being and

recreation activities, together with mass media and technological development, have brought several new challenges to elderly in Pakistan. In addition to it, leisure activities, together with mass media and technological development, has brought several new challenges to the elderly health in Pakistan. Furthermore, rapid social and family changes in Pakistan and similar developing settings are providing several recreational activities to the elderly that result in their psychological well-being.

7. Future Implications

The study recommended that the media and modern technology should be used to enhance older peoples' health and psychological well-being through recreational activities. Therefore, it is important to launch campaign with the help of sociologists and social workers to create public awareness to improve psychological well-being, physical health and social well-being of elder people in Pakistan through media and seminars at individual and community level. Moreover, family members should also provide recreational facilities to elder people at family level that will result to minimize their psychological problems. Furthermore, a comprehensive research may be conducted from rural settings and include family care givers experiences in future.

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