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**Foreign students' status of autonomy, environmental mastery, personal growth, positive relations, purpose in life; and association of all these with using library as a third/ community place**

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**Foreign students' status of autonomy, environmental mastery, personal growth, positive relations, purpose in life; and association of all these with using library as a third/ community place**

**Abstract**

The study was aimed at investigating the status of six domains of the psychological well-being of foreign students studying in Pakistani University comprising five campuses. Additionally, the association of the purpose of using library (as community/ third place or study room), and the length of time spent there on the psychological well-being of foreign students was also estimated. These independent variables were added to the study based on previously published literature. Quantitative approach and survey technique were used to carry out the study. Data were collected from foreign students of a public sector engineering university that has five campuses and libraries at different geographical locations across Pakistan. Data were analysed using descriptive statistics, *t*-tests, one-way ANOVA, post hoc Tukey test, Cohen's *d* and Eta Squared Values calculation.

Findings of the study indicate that only 12% of the foreign students visited library while taking it as a third/community place. They were found significantly better in the domain of environmental mastery than their counterparts. The female foreign students indicated significantly lower autonomy, personal growth, and purpose in life than the male students. The students who indicated a higher library visit frequency were found significantly better in positive relations and self-acceptance.

**Keywords:** Academic library as third place; Academic library as a community place; Psychological well-being of foreign students; Psychological well-being of foreign male and female students; Psychological well-being and role of a library

## **Introduction**

Scientific literature indicates that majority well-being research, whether psychological or physiological, is weighted around the absence of wellness (bad physical health, disease presence and its eradication) instead of presence of wellness (Liu et al., 2009; Ryff et al., 1996; Stoewen, 2017). Few researchers, on the contrary, emphasize that investigating the elements of happiness and satisfaction is also important in both general and in university environment (Haynes & policy, 2002; Sheu et al., 2009). The sphere of investigating happiness and satisfaction is gaining ground, and is attracting researchers since the World Health Organization (WHO) has defined health as both the psychological (mental and social), and physical well-being (WHO, 1948).

The prior health indicator in the sequence (psychological well-being) “refers to inter- and intra-individual levels of positive functioning that can include one's relatedness with others and self-referent attitudes that include one's sense of mastery and personal growth” Burns and Machin (2009). It is further divided into two approaches i.e. hedonic approach and eudemonic approach (Burris et al., 2009; McMahan & Estes, 2011). The hedonic approach covers the areas of human pleasure, happiness and satisfaction (Diener et al., 1999); while the eudemonic is related to covering all the aspects related to the complete human functioning and called psychological well-being (PWB). The eudemonic approach comprises – autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance (Ryff, 1989a).

Psychological well-being of the students has been an area of interest for modern researchers of the late 20<sup>th</sup> and early 21<sup>st</sup> century. It has been assessed with regard to the aspects related to the well-being of school students (Buchanan & Bowen, 2008; De Haan & MacDermid, 1998; Shaunessy et al., 2006; Zeng et al., 2016); college students (Bowman, 2010;

Li & Lin, 2003; Wang & Castañeda-Sound, 2008); and the university students (Burriss et al., 2009; Cooke et al., 2006; Wang et al., 2007). Foreign students wellbeing has been also explored from the prospects of cultural orientations in other countries (McKinlay et al., 1996); from the prospect of socio cultural adaptation of foreign students in Ireland (O'Reilly et al., 2010); and from the aspect of measuring effects of using social networking sites on psychological well-being of foreign students in Japan (Guo et al., 2014). However, our best search of the previously published literature indicated that the status of PWB of foreign students studying in Pakistan from the prospect of library place has never investigated, and thus is a research gap.

Another literature gap was found during the literature review conducted for the present investigation. According to it, researchers previously investigated the effect of different places, e.g., residential places (Magalhães & Calheiros, 2020; McKay & Cole, 2017; Tejal & Health, 2010), workplaces (Lysenko & Lopez, 2019; Romano et al., 2007; Shaunessy et al., 2006), and library place sampling staff of the library (Karimi et al., 2012) etc. on PWB. Moreover, the previous studies proved that the classroom design impacted the students' learning (Barrett et al., 2015). However, the association of purpose of using library place and hourly frequency to visit library with PWB remained unexplored in Pakistani culture. Academic libraries within their university are designed by the architects, and their set ups are active stakeholders for PWB of students and faculties. They are playing an active role in supporting foreign students in maintaining better PWB conditions Cox and Brewster (2020).

Keeping in view this, the present study is designed in a comprehensive way to identify the status of six domains of PWB of foreign students and the role of academic libraries in the psychological well-being of foreign students of a public sector university that has five campuses at different geographic locations across Pakistan.

## **Statement of the problem**

McKinlay et al. (1996) indicated that foreign students react to a change in cultural environment and new surroundings, which results in cultural shock, psychological disturbance, and ailments during their stay abroad. Fritz et al. (2008) further devised two broader categories of these ailments. The first comprises mood and anxiety, further sub-categorizing anxiety into change, irritability and mood, financial issues, and immigration issues. The second includes academic and social problems and issues like work, language, acculturation, making new friends, and being apart from family. Moreover, September et al. (2001) in his study based on correlation of imposter feelings and PWB of university students, claimed that they often face challenges that may lead to self-doubt and uncertainty. All the facts result in psychological disturbance in foreign students because they are even more vulnerable to these ailments due to the cultural variations, loneliness and stress of staying away from home and families. But, in this scenario, the status of PWB of foreign students remained unexplored in Pakistani university settings.

Moreover, foreign students spend third largest amount of their times in libraries (Choy & Goh, 2016). Researchers e.g. (Montgomery & Miller, 2011) claimed that all these libraries are designated as third/ community places (designed to facilitate the students) where students go to see and meet new people. Foreign students totally agree with the claim and they find libraries suitable for community-building, influencing and motivating, talking to and meeting others, and continuing education programs (Lin et al., 2010). However, the role of library third/ community place in the psychological well-being of foreign students in the realm of academic libraries remained unexplored despite the fact that the role of national libraries (Tuomi, 2016); public libraries (Hicks et al., 2010; Ingham, 2014); & health and nutrition (Kurzweil, 1993) libraries was previously investigated and found positively influencing the well-being of their users. Based

on these facts, estimating the association of purpose of using (as a community place or study place) and time spent in the library with the six domains of PWB was found quite necessary. Therefore, the present study is designed to identify the status of psychological well-being of foreign students in Pakistan. Moreover, the present study is designed to identify differences in the six domains of the psychological well-being based on foreign students' gender differences, correlation of frequency to use library, and the purpose of using library (as a community place or not) with the status of PWB of the foreign students.

### **Objectives of the study**

The objectives of the study were to investigate:

Status of psychological well-being of foreign students in a Pakistani university setting

Ratio of the foreign students who use library as a third place/community place and who do not

The difference in the status of the six domains of the psychological well-being based on gender differences

Association of using library as a third place/community place with the psychological well-being of foreign students

Association of the hourly frequency of spending time in the library with the psychological well-being of foreign students

### **Delimitations of the study**

The study investigated all the mentioned prospects from only students own understanding, e.g., the prospect of using library as a third/ community place (did not consider third place events held in the university).

Foreign students studying at five campuses of a public sector university located at different places in the country served as sample of the study.

## **Literature review**

Previous works related to the present study are reviewed in this portion of the study. The patterns of the published literature related to the present study made us divide this portion into four parts – well-being; psychological well-being; well-being and libraries, academic libraries and their third-place roles; correlation of psychological well-being. The first part comprises the relevant studies giving an idea of well-being, second includes the studies published on psychological well-being and the scale used for this study, third the correlations of well-being and libraries, and fourth about the third-place roles of academic libraries.

### **Well-being**

Diener (2009) described that this area is concerned with peoples' why and how experiencing lives in positive ways. Stoewen (2017) clarified that the well-being should not be associated with the physical health only. Instead, it accompanies eight dimensions i.e. physical, intellectual, emotional, spiritual, social, vocational, financial, and environmental. However, the connection between physical and psychological well-being cannot be denied. Its roots may be traced as back as 300BC when philosophers like Socrates and Aristotle had opined that there was a connection between psychological and physical well-being. Later, empirical researches proved the claim to be true; and this proved that the psychological well-being reduced the disease onset, disease progression and disease longevity etc. (Hernandez et al., 2018).

The psychological well-being is found to be a complex area which is interwoven in every sub-kind (physical, intellectual, emotional, spiritual, social, vocational, financial and environmental) of the well-being. Keeping in view the complex scenario, Burns and Machin (2009) described

definitions of well-being in the perspective of different professions e.g. economists elaborate well-being in terms of economic capacity; and health professionals describe it in terms of disease eradication etc. The researcher defined psychological well-being in the words that “Psychological well-being refers to inter- and intraindividual levels of positive functioning that can include one’s relatedness with others and self-referent attitudes that include one’s sense of mastery and personal growth. Subjective well-being reflects dimensions of affect judgments of life satisfaction”.

### **Psychological well-being**

The literature on psychological well-being indicates multi-dimensionality of the psychological well-being. In literature, it has become an umbrella term, prompting research in the areas of social, physical, emotional, mental, spiritual, and cultural health. However, most of the researchers agree that the psychological well-being is related to all aspects of the physical well-being (Linley et al., 2009). PWB comprises two major approaches i.e. eudemonic and hedonic. The researchers elaborated that the eudemonic approach is related to the well-being of humans pertaining to their potentials for functioning in life. It covers all the functions related to optimal functioning of a human being (Diener & Ryan, 2009; Ryan & Deci, 2001). The hedonic approach relates to the human pleasure and absence of pain (Kahneman et al., 1999; Kim et al., 2003; Ryan & Deci, 2001). The present study on PWB comes under the umbrella term eudemonic approach.

Negovan (2010) considered four dimensions of the general well-being i.e., psychological well-being, social well-being, well-being related to the faculty events, and the well-being related to every day events. The present study adopts the eudemonic approach and investigates the psychological well-being, which is sub-kind of well-being.

Measuring the levels of psychological well-being has been difficult for researchers because it is based on the behaviours of diverse personalities. For this complex investigation, researchers used a variety of scales for measuring PWB. But the Ryff's model and scale remained popular among researchers investigating psychological well-being in educational institutes settings e.g. (Kitamura et al., 2004; Sharma et al., 2018; Shokri et al., 2008) etc. The scale is suitable among all because it has been sketched from a life span research and underpins the philosophies of Maslow's self-actualization, Allport's mature personality, and Roger's fully functioning individual. The model comprises six factors of psychological well-being (Ryff, 1989a; Ryff et al., 1995; Ryff, 1989b), which are as follows:

**Autonomy:** is about the one's confidence of expressing opinion.

**Environmental Mastery:** is related to the feelings of persons about the situations he/she is in.

**Personal Growth:** is about a person's trying new experiences, and thinking about his/herself and the world.

**Positive Relations with Others:** is a measure of the willingness to share time with others.

**Purpose in Life:** is about the clarity in the purpose of life.

**Self-Acceptance:** is about the one's likeness of the aspects of own personality.

The scale proved to be reliable in many socio-cultural environments, and the researchers translated it in different languages. Its different versions have been developed including 18, 24, 39, 42, 54 and 84 items versions. The 42 items scale was chosen for the present investigation due to its suitability for our needs, and the reliability it has shown in the previous studies (Abbott et al., 2006; Sirigatti et al., 2009; Springer & Hauser, 2006).

### **Well-being and libraries**

The relationship of libraries' buildings, environment and books put there with healing/ psychological well-being can be traced as back as 300BC. The great Greek philosophers like Socrates and Aristotle opined that libraries played a major role in healing and making people psychologically well. The Greeks considered library a healing place. They even had engraved on the door of the library of the Thebes these words: "A healing place for the souls". In between the eras of Greek philosophers and the newest well-being roles of libraries, there was a period during which different diseases and psychological issues were cured by making patients read selected helpful books (bibliotherapy technique). Moreover, the books were so helpful for the well-being; and this bibliotherapy method was used by prescribing Jane Austen's novels to the war field soldiers. In addition to these war field soldiers; the method has been used by Sigmund Freud for psychoanalysis and psychological sessions. Through these ways, the library places along with their collection and space have been playing a vital role in the psychological well-being of its users (McCulliss, 2012; Pardeck, 2014).

### **Academic libraries and their third-place roles**

These third places are defined by various researchers while keeping in view their characteristics. Oldenburg (1997) defined that the third places provide people with the room to engage in conversation and build a sense of community. These are beyond home and office where one can meet people from different backgrounds and learn new things from them. Later, Muller and Druin (2012) further elaborated that the places can be considered as fertile environments in which information actors and participants can relate, understand and combine diverse knowledge into new insights and paths for action and thinking.

Official website of the American Library Association describes that the scope of academic libraries has been widened to building, connecting, and strengthening vibrant communities, sustaining democracy, providing meeting spaces, and enhancing productivity and cultural engagement. These roles were named as third place roles. This third place roles originated in the context of public libraries, but later it also spurred to the academic libraries (Dalmer, Griffin, Baluk, & Gillett 2020; Kreber & Mhina, 2007). Kuhlthau and Cole (2012) claimed that all the academic libraries/ learning hubs are third spaces. They broadened its role to the education and described that “the third places are intersection zones between the curriculum and the students’ knowledge and ways of knowing, creating a dynamic conception of the learning space that involves students outside the classroom knowledge”. Montgomery discussed all the previously given definitions and characteristics of third places in their paper, clearly designating that every library is a third place. Their claim proved true, first when foreign respondent students of a study revealed that they used libraries for meeting and communicating people most of the time (Lin et al., 2010). Second, when universities and libraries included community building to the core of their institutional policies (Kreber & Mhina, 2007). In short, the core purpose of libraries is not limited to the availability of resources and services. It has now expanded to the grooming and well-being of students.

### **Effects of library places**

The researchers investigated from different angles that how libraries’ buildings and environment comfort its users. These may be divided into two broad categories of tangible and intangible prospects of libraries.

### ***Tangible prospects of library spaces***

The studies related to the tangible prospects of libraries are reviewed in the following portion. Castro et al. (2019) provided insights to the library environment and furniture to support student activities, reduce noise level, and facilitate the patrons' preferences and needs. All these facilities in libraries comfort its users. The researchers suggested the library managers to allow students to organize their functions in the libraries during weekends. Graff et al. (2019) studied a unique physical facility that was the family-friendly study room where parents could bring their children along with them. This space remained highly valued for the library patrons, and they felt extremely happy and satisfied with it. Adcock et al. (2019) studied another much-appreciated addition of a room where mothers could breastfeed their children at the University of Mississippi Medical Centre. The room was specifically decorated and planned for the purpose.

Wachter (2018) and Riehman-Murphy and Mross (2019) remarked that meditation and prayer rooms should be included in the library spaces. They should be decorated according to the beliefs and requirements of students of different religions. This will help in comforting the library users. All these tangible prospects were started in libraries to make their users at ease. The academic libraries do their utmost to make their students feel happy and satisfied. Along with these tangible prospects, there are intangible prospects, which have been investigated in the forms of effects and correlations/ associations in the form of statistical calculations.

### ***Intangible prospects of library spaces***

The studies gauging the effects of libraries are reviewed in this portion of the study. Mainly two themes related to the students learning and physical fitness emerged from the review done for the study. Yip et al. (2019) investigated the effectiveness of 24-hour open learning spaces on the students learning in the Hong Kong Design Institute. The results indicated that the 24 hours open zone significantly impacted the students learning. Li et al. (2018) analysed the

effect of different library designs on the students learning. The results showed that librarians are still playing their significant role in the current digital era of computers and World Wide Web. The students learning was found to be impacted by lighting, accessibility, and acoustic. The library users interestingly enjoyed natural light more than the electric. Farmer (2016) in a literature-based paper, reviewed the studies investigating the roles of libraries. The researcher opined that the library spaces named as research commons should be designed in a way that separate places are allocated for each research-related task. Moreover, libraries should have technology, activity, study, ambience and amenities zones to improve the research.

Libraries have now started providing room for physical fitness activities also. These fitness corners make them more vibrant as well as active learning and physically well-being spaces. Clement et al. (2018) investigated the effect of a library gymnasium space on the library users at the University of Tennessee Knoxville. The library made a fitness room containing instruments like treadmills, standing desks, cycling desks and balance chairs. It indicated high level of acceptance among users, and the value of the learning space also increased. Overall, the addition converted the library space into an active learning space.

The review of the literature done for the present investigation indicates the addition of many unconventional rooms to libraries including meditation rooms, prayer rooms, study rooms, breastfeeding rooms, and family-friendly discussion room. All these indicated high levels of acceptance among patrons and effected the patrons' learning, research development, physical and psychological well-being. However, there is a dearth of literature on the effect of using academic libraries' as third/community space on the psychological well-being of foreign students in Pakistani context. Therefore, the present study is designed in a quantitative way to fill the

literature gap and empirically investigate the psychological well-being of foreign students from different angles.

### **Research methodology**

Appropriate approaches and inherent issues were reviewed in the literature. Quantitative approach with survey method was used due to its suitability according to the objectives of the study. There were three major reasons to choose a quantitative approach. First, when the qualitative grounds of theories have been established, researchers often start emphasizing on quantitative approaches; unless, objectives require a qualitative exploration. Second, “quantitative approaches can help provide large, representative samples of cultural communities; reliably assert cause-and-effect relationships among constructs as well as confirm or dis-confirm theoretical hypotheses” (Soroya & Ameen, 2017). In the scenario of present investigations, the PWB theory and model had already been established, and the study was concerned with the confirming or dis-confirming the theoretical hypothesis. Therefore, the quantitative approach and survey method was used for the present investigation. The approach and method are widely used by researchers in the field of library and information management (Ahmed & Soroya Muhammad, 2016; Ahmed et al., 2015).

### **Instrument**

The structured instrument (42 items) devised by Ryff (1989a) was used to assess the psychological well-being of the foreign students. The instrument already proved to be highly reliable and valid when checked on a sample of 321 well-educated, socially connected, financially-comfortable and physically healthy men and women (Springer & Hauser, 2006, p. 4). It ensured unbiased and correct data collection through removing the domain headings, randomly shuffling the statements, and giving reverse statements in it. Moreover, it proved highly reliable

when tested on different sets of samples in different environments (Burns & Machin, 2009; Meléndez et al., 2009). We used the same questionnaire with the permission from its creator and added to it the demographic and independent variables. Independent variables were added to the instrument seeking arguments from the previously published literature comprising gender, purpose to use the library, and hourly frequency to use the library. The details of the independent variables related literature are as follows: -

The gender related variable added to the instrument because; first Chraif et al. (2015) had emphasized on investigating gender differences in the status of PWB. In addition, Bussey and Bandura (1999) had pointed out that females had to bear discrimination starting from their early life to educational career and societal lives. All these discriminations together disturb their personalities and well-being.

Second, two independent variables related to the library place were also added to the instrument because Stoewen (2017) remarked that environmental dimension influences the mood and well-being. Moreover, many studies previously identified the positive correlations/ associations of places with the PWB e.g. (Lysenko & Lopez, 2019; Magalhães & Calheiros, 2020; McKay & Cole, 2017; Romano et al., 2007; Shaunessy et al., 2006; Tejal & Health, 2010) etc. Therefore, two independent variables were added to the instrument, i.e., purpose to use the library (whether they use for community building purposes or for study purposes) and hourly frequency to use the library.

### **Sample**

The foreign students studying at the five different geographically scattered locations were the sample for the study. Foreign students are different from the local ones because they reside away from their homes, and as a result may face cultural shock. “Cultural shock is a sense of loss

and feelings of deprivation with regard to friends, status, profession and possessions” (Furham, 2012). They may face cultural shock because they reside away from their homes. This scenario required an estimation of the status of the foreign students’ psychological well-being. Therefore, the study investigated: a) the status of psychological well-being of the foreign students studying in Pakistan, b) the number of students who use library as a third place/ community place, c) the differences in the six domains of the psychological well-being based on the gender differences, frequency to use the library space, and purposes to use the library (if they use library as a community space or not); and d) to fill the literature gap related to the role of an academic library in the well-being of its foreign users.

Websites of Pakistani universities were reviewed in order to know the numbers of foreign students studying in them. The review indicated that the largest number of foreign students was enrolled in a public sector engineering university comprising five campuses (N = 738). A few students were also enrolled in the rest of the universities, but were not enough for a quantitative representative sample. The students of the five campuses made it enough sample across the geographically scattered locations in Pakistan. The sample was considered to be sufficient because previously researchers took sample of students of one class from five universities e.g. (Liu et al., 2009) etc.

There are sampling formulas to draw the proper sample size. However, the Yamane’s formula was used to know the enough representative samples because of its wide acceptability among researchers (Halperin, 1978; Kasiulevičius et al., 2006; Tejada & Punzalan, 2012) etc. The sample related calculations for the present study according to the formula are as follows: -

$$N = n / 1 + n (e)^2$$

$$N = 738 / 1 + 738 (0.05)^2$$

$$N = 738 / 1 + 738 (0.0025)$$

$$N = 738 / 2.845$$

$$N = 259.40 = \mathbf{260}$$

### **Data collection**

A senior librarian at the public sector engineering university was contacted and she got the questionnaire filled from the sample. She, while collecting the data, assured that the respondents were foreign nationals. In total, 300 black and white paper format questionnaires were distributed among the sample. Out of which, 187 questionnaires were returned. Forty-one questionnaires were excluded from the data entry because the respondents had marked a single option in the whole questionnaire (e.g. option 1 or 5 etc.). Rest of the completed questionnaires (N = 146) were entered and analysed in the statistical package for social sciences (SPSS).

### **Data analysis**

The instrument ensures unbiased responses to its maximum. First, it had twenty reverse coded items in it. The reverse coded items are often put in the instrument for the purpose to reduce bias. The items were re-coded for the analysis in the instrument. The sequence of these statements was reverse changed e.g. 5 was recoded with 1, 4 with 2, 3 with 3, 2 with 4, and 1 with 5. Second, the instrument did not contain the domain headings and all the statements randomly mixed. This meant that each statement stood alone and had minimum connection with the domain heading. This also helps in reducing bias. The statements, after the data collection, were combined in all the six dimensions - autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance. The data were then analysed using descriptive (frequencies and percentages) and inferential statistics (reliability, normality and

frequency check, *t*-tests, one-way ANOVA, and effect size measurements using Cohen's *d* and Eta Squared Values).

### **Reliability statistics**

Cronbach's Alpha value was calculated in order to check the internal consistency of the instrument. It is the most common measure of reliability used with the Likert type scales. Earlier the instrument has proved to be highly reliable ( $\alpha = .85$  to  $.92$ ) when calculated on the Italian university students of almost the same age group, and of same socio-cultural status September et al. (2001).

Different studies indicate different acceptable values of Cronbach's Alpha in between  $.70$  to  $.95$  (Bland & Altman, 1997; Nunnally et al., 1967; Tavakol & Dennick, 2011). However, all of them are agreed upon that the value of Cronbach's Alpha exceeding than  $.70$  is reliable. The following table indicates Cronbach's alpha value calculated on a sample of foreign students studying at university level in Pakistan:

***Table 1***

#### **The reliability score of 42 items scale in the Pakistani environment**

N of Items	Cronbach's Alpha $\alpha$
42	.795

The alpha value for the instrument remained  $.795$ , which is an indication of the high level of internal consistency (reliability).

### **Parametric vs. non-parametric statistics**

There is a debate on parametric and non-parametric statistics in the literature. Flynn (2003) described three basic assumptions a researcher should consider before deciding to apply

either parametric or non-parametric statistics i.e. normal distribution, Homogeneity of variance, and continuity (p. 15). Marshall (2016) however, remarked that for the samples larger than one hundred, the normality tests are overly conservative and the assumption of normality might easily be rejected. Norman (2010) reviewed the previously published studies related to the choice of parametric or non-parametric statistics -sample size, normality of distribution of data, ordinal scales etc. The researcher concluded the literature-based discussion supporting the use of parametric statistics anyways whether the assumptions meet or not. Therefore, the decision to apply parametric statistics on the collected data was made. However, to draw reliable inferences, the effect size using Cohen's *d* and eta squared values were calculated along with the parametric statistics. Both indicate the strength of relationships among variables (Awan et al., 2019, 2020). The SPSS does not provide the facility to calculate the Cohen's *d* in it with *t*-tests. However, the software has a built-in option to calculate eta squared value in one-way ANOVA. Therefore, Cohen's *d* calculations were calculated manually and Eta Squared calculated in the SPSS.

**Table 2**

**Demographic and independent variables statistics**

	<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Gender</b>				
Male	132	90.4	90.4	90.4
Female	14	9.6	9.6	100.0
Total	146	100.0	100.0	
<b>Visit library as a community place or not</b>				
Yes	18	12.3	12.3	12.3
No	128	87.7	87.7	100.0

Total	146	100.0	100.0	
<b>Frequency to visit</b>				
Daily	16	11.0	11.0	11.0
Twice a week	20	13.7	13.7	24.7
Once a week	40	27.4	27.4	52.1
Twice a month	40	27.4	27.4	79.5
Once a month	30	20.5	20.5	100.0
Total	146	100.0	100.0	
<b>For how many hours, sit in the library</b>				
1 to 5 hours a week	86	58.9	63.2	63.2
5 to 10 hours a week	34	23.3	25.0	88.2
10 to 15 hours a week	16	11.0	11.8	100.0
Total	136	93.2	100.0	

The Table 2 indicates the frequency and percentage of respondents. Among the respondents, 132 (90.4%) were males and 14 (9.6) females. This made who uses library as a third/community place and who does not. A larger number of respondents (88%) used library for other than community space purposes and less number (12%) of foreign students considered the library as a third/community place. A small number of respondents 16 (11%) visited library daily, and 20 (13.7%) were visiting library twice a week. Equally 40 (27.4%) were visiting the library twice a month and once a month. A large majority of the respondents indicated that they were spending 1 to 5 hours a week in the library. There were 16 (11%) respondents who were spending 10 to 15 hours a week in the library.

The statements of each domain were computed and their mean and standard deviations calculated. The following table indicates the overall status of PWB of the foreign students.

**Table 3**

**Status of psychological well-being of foreign students**

Sr. No	Domains of psychological well-being	M	SD
1	Autonomy	3.47	.59
2	Environmental mastery	3.19	.54
3	Personal growth	3.71	.47
4	Positive relations	3.41	1.09
5	Purpose in life	3.45	.61
6	Self-acceptance	3.41	.54

*Note:* Scale = Strongly disagree = 1; Strongly agree = 5.

The psychological well-being of the foreign students indicated in the Table 3 are between neutral to agree. It can be guessed that the foreign students are in secure zone regarding their psychological well-being. Personal growth indicated the highest mean score among all the constructs ( $M = 3.71$ ;  $SD = .47$ ). They are open to experiencing new things and thinking about his/her selves. The lowest mean score was observed for the environmental mastery ( $M = 3.19$ ;  $SD = .54$ ).

To know the difference in the six domains of PWB, independent sample *t*-test was applied. The results of the test are indicated in the following table:

**Table 4**

**Difference in psychological well-being scores between males and females**

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**Group Statistics N=146, M=132, F=14**

	<b>Gender</b>	<b>M</b>	<b>SD</b>	<b>T</b>	<b>df</b>	<b>P</b>	<b>d</b>
Autonomy	Male	3.55	.55	5.47	144	.00	1.61
	Female	2.71	.49				
Environmental Mastery	Male	3.18	.56	-1.88	23.05	.07	.39
	Female	3.36	.31				
Personal Growth	Male	3.76	.46	4.03	144	.00	1.39
	Female	3.24	.26				
Positive Relations	Male	3.47	1.12	1.75	144	.08	.64
	Female	2.93	.41				
Purpose in Life	Male	3.50	.61	2.73	144	.00	.81
	Female	3.04	.51				
Self-Acceptance	Male	3.43	.54	1.18	144	.23	.33
	Female	3.25	.54				

*Note:* alpha value  $\leq .05$

*Note:*  $d < 0.5$  = small effect;  $0.5 \leq d < 0.8$  = medium effect; and  $d \geq 0.8$  = large effect.

Table 4 indicates that there was a significant difference between both the genders in the domains of autonomy, personal growth, and purpose in life. The male respondents showed significantly higher mean scores than the females in all these three constructs. The magnitudes of differences (strength of relationship) between the constructs at 95% *CI* remained large for all three constructs i.e. autonomy ( $d = 1.61$ ) personal growth ( $d = 1.39$ ) and purposes in life ( $d = .81$ ). This very large magnitude of difference indicates that the autonomy, personal growth, and purpose in life of the male foreign students is very high than the female students.

**Table 5**

**Mean difference in the constructs of psychological well-being between the students who used the library as a third/community place and who didn't**

<b>Group Statistics, Library as a Third Place, Yes= 18, No = 128</b>							
		<b>Mean</b>	<b>Std. Deviation</b>	<b>t</b>	<b>df</b>	<b>p</b>	<b>d</b>
Autonomy	Yes	3.05	.63	-3.29	144	.00	.80
	No	3.53	.57				
Environmental Mastery	Yes	3.41	.31	2.76	34.63	.00	.55
	No	3.16	.56				
Personal Growth	Yes	3.31	.59	-3.16	19.60	.00	.89
	No	3.77	.43				
Positive Relations	Yes	4.11	.78	1.20	17.14	.24	.39
	No	3.32	.49				
Purpose in Life	Yes	3.28	.46	-1.27	144	.20	.36
	No	3.48	.63				
Self-Acceptance	Yes	3.11	.59	-2.58	144	.01	.62
	No	3.46	.52				

*Note:* alpha value  $\leq .05$

*Note:*  $d < 0.5$  = small effect;  $0.5 \leq d < 0.8$  = medium effect; and  $d \geq 0.8$  = large effect.

An independent sample *t*-test was applied to know differences in the six domains of the psychological well-being based on visiting the library as a third/ community place or not. The results of the test remained interesting. The students visiting library as a third/community place

indicated significantly better environmental mastery, personal growth, and self-acceptance than their other counterparts. In the domain of environmental mastery, the students who visited library as a third/community place indicated ( $M=3.41$ ;  $SD= .31$ ), and others ( $M=3.16$ ;  $SD= .56$ ) Conditions;  $t(34.63) = 2.76$ ,  $p = .00$ . The magnitude of differences in the constructs remained medium ( $d = .55$ ). Personal growth of the foreign students who used the library as a third/community place also remained significantly higher than their counterparts with high effect size ( $p = .00$ ;  $d = .89$ ). The library as a third/community place user group indicated the higher mean score in self-acceptance ( $M=3.11$ ;  $SD= .59$ ) than others ( $M=3.46$ ;  $SD= .52$ ), Conditions;  $t(144) = -2.58$ ,  $p = .01$ . Along with the significant value, the construct indicated a medium effect size ( $d = .62$ ).

One-way analysis of the variance test was conducted between the groups to explore the difference in the psychological well-being based on the hourly frequency of spending time in library.

**Table 6**

**The difference of results of hourly library usage frequencies and their effects on the six domains of the psychological well-being**

Variables	1-5 hours a week N = 86		5-10 hours a week N = 34		10-15 hours a week N = 16		ANOVA		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<b>F</b>	<i>p</i>	<i>η</i> <sup>2</sup>
Autonomy	3.50	.66	3.25	.47	3.59	.31	2.76	.06	.04
Environmental Mastery	3.24	.52	3.08	.53	2.91	.56	3.26	.04	.04
Personal Growth	3.67	.51	3.64	.45	3.85	.22	1.16	.31	.01
Positive Relations	3.34	.54	3.08	.40	3.51	.35	5.17	.00	.07
Purpose in Life	3.51	.55	3.19	.74	3.53	.50	3.78	.02	.05
Self-acceptance	3.53	.57	3.24	.47	3.12	.36	6.18	.00	.08

*Note:* alpha value  $\leq .05$

*Note:*  $\eta^2$  =Small = .01 or 1 %; Medium = .06 or 6%; and Large = .138 or 13.8%.

The results in the Table 6 show that there were statistically significant differences in the environmental mastery, positive relations, purpose in life, and self-acceptance. In the environmental mastery, the difference was significant ( $p = .04$ ) at the just below medium strength of relationship ( $\eta^2 = .04$ ). The positive relations also significantly differed ( $p = .00$ ), with slightly higher than medium strength of relationship ( $\eta^2 = .07$ ). The purpose in life remained significant with just below medium strength of relationship ( $p = .02$ ;  $\eta^2 = .05$ ), and the self-acceptance with slightly higher than medium strength of relationship ( $p = .00$ ;  $\eta^2 = .08$ ).

One-way ANOVA tests only indicate whether the difference did exist or not. For knowing where the difference laid, Post hoc Tukey tests are often applied. They were also applied to know where the difference laid in the frequencies.

**Table 7**

**The results of Post-hoc Tukey test**

Variables			Mean difference (I-J)	SE	<i>p</i>	<i>d</i>
Positive Relations	1-5 hours a week	5-10 hours a week	.25	.09	.02	.54
Self-acceptance	1-5 hours a week	5-10 hours a week	.28	.10	.02	.55

*Note:* alpha value  $\leq .05$

*Note:*  $d < 0.5$  = small effect;  $0.5 \leq d < 0.8$  = medium effect; and  $d \geq 0.8$  = large effect.

Post-hoc comparisons using Tukey HSD test indicated that there was a statistically significant difference in positive relations and self-acceptance based on the students' frequency to use the library. The students using the library more frequently remained significant better ( $p = .02$ ) in positive relations with a medium strength of the relationship ( $d = .54$ ). The students who used the library 5-10 hours a week remained significantly better in self-acceptance ( $p = .02$ ) indicating medium effect size ( $d = .55$ ).

## Results and discussion

If we consider students of both the genders as a single entity, then they are in secure zone. All the six domains of the psychological well-being showed 3+ mean score. The highest mean score observed in the domain of personal growth. It meant that the foreign students rate

themselves as highly growing. The lowest mean score was observed in the environmental mastery. This indicates that the foreign students' environmental issues should be addressed. The librarians, university administration, and their hostel administrators must play their role in helping the foreign students overcome their environmental hurdles.

A small number of the foreign students use library as the third/ community place (12%). These results are aligned with Gardner and Eng (2005) who had reported that the core purpose of a large number of the students was to visit the library because they wanted to study alone (80.6%). Freeman (2005) had also noted that the purpose of a large number of students was using it as a study room. Thus, just like other emerging trends like discussion places, event places, physical health maintaining places, and prayer places, the library third/community space concept is also new. It should be promoted as a the third-place among the foreign students, especially the females keeping in view their lower autonomy, personal growth and purpose in life.

The male respondents indicated significantly higher means in autonomy ( $p = .00$ ), personal growth ( $p = .00$ ), and purpose in life ( $p = .00$ ). The results of the study are different than that of Chraif et al. (2015). The researcher studied Romanian students and his male respondents scored more than females in personal growth. In the Pakistani context, though statistically not significant, female foreign students are better in environmental mastery than the male respondents. However, males are better in all of the domains except for the environmental mastery. This is the point which needs to be addressed, and improvement in all these five domains in the female foreign students should be made i.e. autonomy, personal growth, positive relations (lowest score), purpose in life, and self-acceptance.

The male students also indicated higher means scores in positive relations and self-acceptance, though not significantly higher. The results of this study interestingly vary from those of the Western culture. Ryff et al. (1996) remarked that females of every age group remain good in positive relations and personal growth. This also proved by Chraif et al. (2015), whose comparative study indicated that the female respondents remained significantly better than the male respondents in the domains of personal growth and positive relations.

This is worth noting that the respondents visiting the library as a community place indicated better personal growth. The female students (scoring lower in personal growth than the male respondents) may improve their personal growth by visiting library as a community place. The respondents visiting the library as a community place showed better environmental mastery. This indicates that the male foreign students showing lower environmental mastery, may improve their environmental mastery if they enhance their frequency to visit the library as a community/ third place.

Keeping in view the females low score in positive relations and self-acceptance in the Pakistani scenario, the universities administration, in association with their libraries' management should execute plans to reshape library as a third-place to improve well-being of the foreign students -especially the females. Cultural or social programs can be launched to provide for opportunity for socialization in library. Furthermore, a general understanding should be cultivated so that the students consider their libraries as a space of socialization, third place, and space of psychological well-being. The females indicated higher mean scores in the environmental mastery only.

Results of the Post-hoc Tukey test revealed that the positive relations and self-acceptance well-being of the foreign students who used the library as a third/community place for 5-10

hours a week were significantly better than those who used it for 1-5 hours. It indicates that the students who visited the library more frequently are better in managing the positive relations and self-acceptance. In this scenario, the students who want to improve their status of positive relations and self-acceptance, may enhance their frequency to visit the library.

### **Significance of the study**

The study has theoretical, practical and policy implications for the universities, library organizations and the foreign students. Theoretically, it fills the literature gap by identifying prevalence of using academic libraries as a third place and its effect on the six domains of the psychological well-being of foreign students. Practically, it establishes a fact that using library as a third/community place improved the positive relations and self-acceptance domains of the psychological well-being among the foreign students. Therefore, foreign students are advised to visit libraries as the third/community spaces and get themselves involved in activities held there. Moreover, library managers, and female foreign students themselves are suggested to improve the aspects of autonomy, personal growth, and purpose in life. Libraries and university administration are recommended to put at an ease female student and engage them in the community activities so that their improvable well-being areas can be enhanced up to the level of their male counterparts.

Regarding the policy implications, the library spaces should be designed while keeping in view the community-building aspects so that these may satisfy societal needs of the students. An active role in improving the psychological well-being of the students may be played by designing the library as a third/community place. Moreover, librarians, keeping in view the results, may reshape the policies about organizing community programs in the libraries in general, and involving female foreign students in the community activities in particular. The incorporation of

the policies regarding making library spaces flexible will ultimately result in the psychological well-being of students.

## **Conclusion**

Concluding, the use of library as a third/community place plays a vital role in the advancement of students' environmental mastery, personal growth, purpose in life, positive relations, and self-acceptance in one way or another. Therefore, the libraries must be designed in a way that they give homely comfort to their patrons. The library places should actively play their part in the psychological well-being of foreign students by providing third/community building opportunities. Based on the results of the study, students are suggested to visit libraries as third/community places very often, so that they remain psychologically well.

## **Limitations of the study**

Being a psychological and behavioural phenomenon, the present investigation of the PWB has some limitations. A major limitation of the study is that, when we checked associations of using library place with the psychological well-being of the foreign students, many other influencing factors may also be affecting their well-being. This limitation was also indicated in the previously published studies investigating associations of different factors with the PWB e.g. Negovan (2010) etc.

Data were collected from five campuses of a public sector engineering university. Although, the sample size was sufficient according to Yamane's formula for sample calculation yet we consider that the sample size could be diverse and collected from other universities also.

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