Non-residential Pakistani Students in Jeopardy: From Social Integration to Suicidal Attitude

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Abstract
The study aimed at examining if social integration was associated with suicidal attitude among non-residential university students and also if there exists any group difference on the basis of private and public nature of the residence. Using purposive sampling technique 408 participants (202 girls and 206 boys) with mean age of 22 years were selected from hostels of government and private universities of Lahore. Social Network Index and Attitude towards Suicide were used to measure social integration and suicidal attitude, respectively. The findings revealed a significant negative correlation between social integration and suicidal attitude and group difference on the basis of nature of residence was also found. Non-residential students of government provided residence scored higher on both variables. The study suggests numerous avenues for further research.

Keywords
Non-residential students, social integration, suicidal attitude.

Introduction
A rapid development of higher education has been witnessed in Pakistan in last decade. It has been reported that during 2010-2015, the number of universities and colleges have increased 78% along with 174 % rise in student enrollment, both private and public. However, the quality education facilities are still limited to only big cities of Pakistan, therefore, students from rural areas are bound to migrate to big cities in order to get higher education. This acceleration towards mass education has definitely increased the burden of providing enough learning spaces, residential and supporting facilities. The transition to hostels is already taxing since students have to face a number of challenges including reduction in contact and social support from friends and family, unavailability of home comfort, adjustment with roommates from diverse cultural backgrounds. Furthermore, it is an irony of fate that Pakistan is a country where no attention is paid towards the condition of hostels. Indigenous literature has suggested that the condition of students’ residential facilities is really alarming in terms of proper surveillance, living conditions, overcrowding, recreational/social activities, community facilities and other facilities necessary for healthy environment. The poor environmental and physical conditions of students’ residence might lead them towards both academic and social maladjustment. Social integration is among one of the significant predictors of healthy adjustment of non-residential students in a new challenging environment. Tinto, V., highlighted two types of integration with respect to university student’s i.e. social integration and academic integration. Social integration is described as the “interaction between the individual with given sets of characteristics (backgrounds, values, commitments, etc.) and other persons of varying characteristics within the college”.

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academic integration is the degree of congruency between the intellectual development of the individual and the prevailing intellectual climate of the institution\(^2^2\). According to him, connection with community is the major prerequisite or predictor of student engagement in both academic and social communities of universities. The problems of NR students highlighted by Grayson, J. P. include “loneliness, homesickness, depression, arrival confusion, the maintenance of self-esteem, somatic complaints, family problems or the loss of loved ones, time pressure, adjustment to food and climate, finances, stress, language problems, difficulty in making friends, and employment” \(^7\). He further explains that one of the major reasons for facing such complications is due to the fact that NR students usually fail in socially integrating into many domains of campus life, hence, get less social support\(^7\). Toyokawa, T., & Toyokawa, N., found that those NR students who were more engaged in extracurricular and social activities than those NR students who were less participative\(^2^6\). Sawir, E., et al., established that about 70% of NR students found, the feeling of loneliness and being isolated, as the biggest problem that even sometimes get to the point of depression\(^2^5\).

In his theoretical model related to students’ drop out, Tinto, V. figured out the major reason for student successful adjustment to be social and academic integration into university culture (as mentioned earlier)\(^2^2\). He admitted that the foundation of his theoretical model is based on the theory of suicide of Durkheim. Durkheim and Masaryk described suicide as a disease of the society and consider two of its major types being characteristic of modern society that include egoistic and anomic suicide\(^5, 1^8\).

According to Durkheim, the former one results from lack of integration into the society and the later one results when individuals lose an inherent relationship with the society and experience a sudden change in their societal status e.g., unemployment, divorce, death of family or friend\(^5\). Globally, the trend of suicide in terms of attempts and completion is increasing drastically and has become the second cause of death among 15-29 year-olds\(^2^9\). Similarly, there is an alarming rise of suicide in Pakistan especially among young adults. According to Human Rights Commission of Pakistan 2012 annual report\(^9\), approximately 5,000 to 7,000 people commit suicide in Pakistan annually and the individuals under the age of 30 years more commonly commit or attempt to commit suicide. Khokher, S., & Khan, M. M. found that, overall rate of suicidal ideation among Pakistani college students, was 31.4% that seemed to be much higher as compared to many other countries\(^1^5\). Similarly, other epidemiological studies in Pakistan established that there is an underestimation of the prevalence of suicide and strongly suggested an urgent need to take preventive measures\(^1^3, 1^4\). A number of literature has suggested the association of social isolation or lack of social integration with depressive symptoms, hopelessness, suicidal ideation, low self-esteem and somatic illnesses\(^1^2, 1^6, 2^0\). The important demographics in suicidal behavior include gender, being young adult, single, unemployed, poor coping etc\(^2^8\). Hence, this could be maintained that social integration not only determines NR students’ retention and success in academic and social domains of campus life but also influence, overall mental and physical wellbeing. As previously no research has been carried out in Pakistan regarding the risk factors of lack of social integration among NR students. The study is one of the

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firsts to highlighting the plight, difficulties and hardships of NR students as a result of underprivileged housing and lack of social integration. So that the desires of NR students to achieve academically may not be jeopardized and steps should be taken to enhance their social integration and involvement. Using a prospective cross sectional research design, study hypothesized that if lack of social integration is associated with suicidal attitude among NR students and if there exists any group differences (between the residents of private hostels and the residents of the government) on the scales of social integration and suicidal attitude

**Methodology**

**Participants**

A total of 408 NR students participated in the study from 3 private (201 participants/ 48.6%) and 2 government universities (207 participants/ 51.4%) of Lahore city. The participants were recruited using stratified random sampling. The sample included university NR students of ages between 18 to 26 years with a mean of 22.14 (SD = 3.03). The female NR students were 49.5 % (202 participants) whereas male NR students were 50.5% (206 participants).

**Measures**

_Berkman-Syme Social Network Index (SNI)_

Berkman-Syme Social Network Index (SNI) was developed by Berkman, L. F., & Syme, S. L. to categorize individuals based on social connectedness and highlighting those at risk of social isolation. The scale comprises of 11 items assessing the type, size, closeness, and frequency of contacts in a respondent’s current social network. The measure categorizes individuals into four levels of social connections i.e. socially isolated, moderately isolated, moderately integrated, and socially integrated. The scale was translated by three professional experts into Urdu language with the permission of author. The Cronbach’s alpha value of translated version of the scale came out to be .92 which indicated high reliability of the scale.

**Attitude toward suicide (ATTS)**

Attitude toward suicide (ATTS) was developed by Renberg, E. S., & Jacobsson, L., 24. It includes three sections, first deals with suicidal problem, second part focuses on multidimensional attitude areas and the last one assesses one’s own life satisfaction and suicidal behavior. The already translated version of ATTS has been used in the current study, which includes total 38 items covering participants’ views about suicide. Each item contains five options i.e. strongly agree, agree, undecided, disagree and strongly disagree and were given scores from 1 to 5 except for two items which were reverse scored. The total score of ATTS ranges from 37-185 and is divided into two major categories i.e. scores ranging from 37-111 is considered as a positive attitude whereas scores from 112-185 falls into the category of negative attitude. Hjelmeland, H., et al., adapted and developed five subscales of ATTS that include; principal attitude (suicide as a right), representations of intentionality, tabooing, preventability of suicide, and knowledge (myths about suicide).

In addition to overall ATTS scores, the current study interpreted results on the basis of these subscales as well to examine the nature of association of ATTS with both groups separately. The Cronbach’s alpha value of translated version of ATTS came out to be. 94 that ensured its sound reliability on current sample.
Demographic form
The demographic form was developed by taking into account other significant variables influencing social integration and suicidal attitude, as reported by scientific literature. It includes participant’s age, gender, birth order, siblings, education, home environment, relationship with family members, and relationship with peers, participation in extracurricular activities and satisfaction with one’s own life.

Procedure
Initially, the current study was authorized and ethically approved by the research committee. After getting permission from heads of selected universities, sample was selected randomly. A pilot study was initially conducted on 10 participants after getting permission from authors of the scales. Urdu versions of the questionnaires were administered to avoid any kind of ambiguity. The main study was then started following the pilot study. The participants were briefed about the objectives of the research and written consent was taken from the participants. The ethical considerations related to confidentiality and the right to discontinue participation at any time were also explained to the participants. Approximately 450 individuals were approached among whom 408 agreed to volunteer in the current study.

Analysis. Statistical Package for Social Sciences (SPSS- 21) was used for the statistical analysis. First, the descriptive analysis was used to find the frequencies, percentage and means of demographic characteristics to get a more detailed picture of the sample. Second, standardized distribution of demographic variables and positive and negative ATTS in relation to four levels of SNI (Table 1), group differences on four levels of SNI (Table 2), group differences on five subscales of ATTS (Table 3) and finally, Table 4 presents the correlation and regression analysis between of social integration and suicidal attitude.

Results
The present study aimed to inspect the association between social integration and suicidal tendencies among NR students and possible group differences among the variables. This section includes statistical data for standardized distribution of demographic variables and positive and negative ATTS in relation to four levels of SNI (Table 1), group differences on four levels of SNI (Table 2), group differences on five subscales of ATTS (Table 3) and finally, Table 4 presents the correlation and regression analysis between of social integration and suicidal attitude.

Overall, 48% of the participants were socially integrated (level IV of social network), 11% of the total sample fell in the level III of SNI (moderately integrated), 25 % of the participants were moderately isolated (level II of SNI) and 16% were socially isolated (level I of SNI). The standardized distribution of significant demographic variables along with the frequency of participants exhibiting positive and negative ATTS was also compared with the levels of SNI (Table 1).
Table 1 Standardized Distribution of Demographic Variables and Positive and Negative ATTS in Relation to Level of SNI.

| Risk factors                        | IV(high) | III   | II    | I(low) |
|-------------------------------------|----------|-------|-------|--------|
| No %                                | 196 (48) | 89 (11)| 106 (25)| 65 (16) |
| Students in private hostels %       | 26.4     | 19.6  | 22.6  | 17.41  |
| Students in government hostels %    | 15.8     | 18.7  | 23.9  | 25.6   |
| Dissatisfaction with hostel facilities % | 4.3     | 6.1   | 6.8   | 7.6    |
| Low participation in extracurricular activities % | 8.5     | 8.9   | 10.3  | 12.9   |
| Conflicts with roommates %          | 79.1     | 79.1  | 83.9  | 86.2   |
| Previous suicide attempts %         | 6.1      | 6.3   | 5.9   | 6.8    |
| Positive ATTS % (with scores 37-111)| 62.1     | 65.8  | 68.7  | 70.3   |
| Negative ATTS % (with scores 112-185)| 66.4    | 64.8  | 59.9  | 57.5   |

The comparison revealed that socially isolated individuals tend to be government hostel residents, are less satisfied with overall hostel facilities, are less participative in extracurricular activities, having more conflictual relationships with roommates and exhibit more positive attitude towards suicide. However, there seemed no significant differences on the variable of attempted suicide on all four levels of SNI.

The results in Table 2 showed that NR students of private universities hold more negative attitude towards suicide (M=144.56, SD=12.41) in comparison to the NR students of government universities (M=131.32, SD=12.25) considering total attitude towards suicide [t (406) = -6.891, p=0.001 (two-tailed)]. The in-depth analysis further revealed that both groups differ significantly on all subscales of ATTS. With the exception of subscales of tabooing and principal attitude (suicide as a right) government students hold more positive attitude towards suicide in all other subscales. Taking into consideration, the representations of intentionality subscale [t (406) = -4.543, p=0.001 (two-tailed)], private students (M=20.13, SD=4.21) had more negative attitude towards suicide than government students (M=18.31, SD=3.45). The findings on the subscale of preventability of suicide [t (406) = -8.401, p=0.001 (two-tailed)] again showed that private students hold more negative attitude (M=28.13, SD=3.63) towards suicide than government students (M=25.45, SD=3.55). Similarly, for subscale of knowledge (myths about suicide) [t (406) = -1.235, p=0.001 (two-tailed)] private students (M=41.23, SD=2.34) had significantly more negative attitude towards suicide than government students (M=35.09, SD=2.84). However, on the subscale of principal attitude [t (406) = -11.789, p=0.001 (two-tailed)] government students (M=49.65, SD=4.34) had more negative attitude towards suicide as compared to the private students (M=37.12, SD=6.18). For the subscale of tabooing [t (406) = -7.324, p=0.001 (two-tailed)] government students (M=8.12, SD=2.13) exhibit significantly negative attitude towards suicide than private students (M=4.93, SD=2.43).
Table 2 Group differences on Five Subscales of ATTS between Government NR Students and Private NR Students.

| Participants        | ATTS (Subscales)          | N  | M     | SD    | df  | t     | p      |
|---------------------|---------------------------|----|-------|-------|-----|-------|--------|
| Government students | Principal Attitude        | 207| 49.65 | 4.34  | 406 | 11.789| 0.001***|
|                     | (suicide as a right)      |    |       |       |     |       |        |
| Private students    | Representations of        | 201| 37.12 | 6.18  | 406 | -4.543| 0.001***|
|                     | intentionality            |    |       |       |     |       |        |
| Government students | Tabooing                  | 207| 18.31 | 3.45  | 406 | 7.324 | 0.001***|
| Private students    | Preventability of         | 201| 20.13 | 4.21  | 406 | -8.401| 0.001***|
|                     | Suicide                   |    |       |       |     |       |        |
| Government students | Knowledge (Myths about    | 207| 8.12  | 2.13  | 406 | 1.235 | 0.001***|
|                     | Suicide)                  |    |       |       |     |       |        |
| Private students    | Total                     | 201| 41.23 | 2.34  | 406 | -6.891| 0.001***|

*p, .05; **p, .01; ***p, .001

The findings in Table 3 revealed that there exists significant group differences considering overall social integration [t (406) =-5.986, p=0.000 (two-tailed)] with NR students of government universities (M=167.18, SD=10.20) being more socially isolated than NR students of private universities (M=187.95, SD=10.49). Furthermore, the detailed analysis on four levels of SNI revealed that both group differ significantly on all levels except for the level III (moderately isolated) [t (406) =5.346, p=0.14 (two-tailed)]. On level I of SNI (socially isolated) [t (406) =-6.458, p=0.000 (two-tailed)] government students (M=28.94, SD=1.87) were more socially isolated as compared to private students (M=25.42, SD=1.01). The findings on level III of SNI (moderately integrated) [t (406) =-7.84, p=0.000 (two-tailed)] suggest that private...
students (M=19.14, SD=3.05) tend to be more socially integrated than government students (M=17.64, SD=19.14). Finally, on last level of SNI (socially integrated) \[ t (406) = -6.823, p=0.000 \text{(two-tailed)} \] private students differ significantly (M=27.98, SD=6.12) in comparison to government students (M=22.13, SD=5.15).

**Table 3** Group Differences on Four Levels of SNI between Government NR Students and Private NR Students.

| Participants Levels of SNI | N | M   | SD  | df | t     | p     |
|----------------------------|---|------|-----|----|-------|-------|
| Government students        |   |      |     |    |       |       |
| Socially integrated        | 207 | 22.13 | 5.15 | 406 | -6.823 | 0.000***|
| Private students           | 201 | 27.98 | 6.12 |     |       |       |
| Government students        |   |      |     |    |       |       |
| Moderately integrated      | 207 | 17.64 | 2.18 | 406 | -7.84  | 0.000***|
| Private students           | 201 | 19.14 | 2.76 |     |       |       |
| Government students        |   |      |     |    |       |       |
| Moderately isolated        | 207 | 19.49 | 3.14 | 406 | 5.346  | 0.14  |
| Private students           | 201 | 19.12 | 3.05 |     |       |       |
| Government students        |   |      |     |    |       |       |
| Socially isolated          | 207 | 28.94 | 1.87 | 406 | -6.458 | 0.000***|
| Private students           | 201 | 25.42 | 1.01 |     |       |       |
| Government students        |   |      |     |    |       |       |
| Total                      | 207 | 167.18 | 10.20 | 406 | -5.986 | 0.000***|
| Private students           | 201 | 187.95 | 10.49 |     |       |       |

A simple linear regression was calculated to predict attitude towards suicide based on social integration. Findings of Table 5 indicate that a significant regression equation was found \( R^2=.612, F (2, 408) =336.12, p<0.01 \) with an \( R^2 \) of 66\%. The current results significantly support the major hypothesis of the study i.e. social isolation will truly predict suicidal attitude among NR students. It revealed that linear regression model explains 66\% of the variance in suicidal attitude by the independent variable social integration.
Table 4 Standardized Regression Coefficients Predicting NR Students Attitude towards Suicide.

| Variables          | B    | β    | \( R^2 \) | 95% Confidence Interval | \( p \) |
|--------------------|------|------|-----------|-------------------------|-------|
| Social Integration | -2.23| -.782**| .66       | Lower: -2.472, Upper: -1.992 | 0.01  |

Note. \( B \) = unstandardized coefficient, \( \beta \) = standardized coefficient beta, \( R^2 \) = coefficient of determination.

Discussion

The Lahore city is considered as one of the metropolitan cities in Pakistan and students from distant areas move to this city for better educational facilities. In order to adjust to new culture and environment of host city most of the students might have to face stressors that could be physical, social, cultural, and functional and biological\(^\text{11}\). Previously very few studies have focused on such issues among NR students in Pakistan. The present study highlighted the importance of social integration among NR students to prevent suicidal behaviors among young adults. The findings of the current study elucidated that dissatisfaction with hostel facilities, low participation in extracurricular activities, previous suicide attempts and conflicts with roommates were among the risk factors of both suicidal attitude and social isolation.

The current findings are in line with a growing body of research literature documenting the effects of physical conditions of housing and quality of interaction with other NR students on psychological wellbeing an individual. For example, Chow, H. P., in his study divided housing conditions into two types which were the determinants of students’ quality of life; one was living environment that he defined as physical environment while the other one was living arrangements that was described as the people being lived with\(^\text{4}\). Similarly, many research studies have established the role of developing healthy relationship with residential and non-residential students, involvement in extracurricular activities, financial status, length of residence, adjustment with the climate and food of the host city and conditions of accommodation \(^3, 19, 21\).

The major finding of the study revealed that there exists a relationship between lack of social integration and suicidal attitude among NR students. Also, there found significant group differences among NR students of government and private universities. The results of this study strengthen the historical tradition of apprehensions about social determinants of suicide, beginning from Durkheim and continued to be proved by current literature \(^5, 12, 27\). Other than Durkheim’s explanation of suicidal behavior a more recent and renowned theory of suicide could be used to justify results of current study in context of NR students. According to strain theory of suicide any of the four types of strains will increase individuals’ suicide risk, and those strains result from differential values, discrepancy between aspiration and reality, relative deprivation, and lack of coping skills in a crisis \(^30\). This could be maintained that lack of social integration along with the torturous situations most of the NR students are to face increased the inclination of an
individual towards suicidal attitude. The group difference found in this study significantly supports this notion. Government funded universities in Pakistan, unlike the developed countries, failed in providing better residential facilities to NR students due to lack of finances and other problems. One of the studies conducted in government universities of Pakistan revealed that satisfaction of students with university facilities was alarmingly low. Similarly, other current local studies revealed that residential facilities in government universities are distressing in terms of social activities, security, hygiene condition, quality of food, attitude of staff and other accommodation facilities. However, the residential facilities provided by exclusive private universities in Pakistan are much satisfactory than the government ones. Therefore, NR students living in government university residence are more prone towards suicidal attitude as they are surrounded by more risk factors including lack of social integration and other demographic variables as compared to NR students of private universities.

**Limitations and Future Implications**

The study highlights the potential effect of social isolation on the mental health of NR students that might govern them towards suicidal attitude. The study also found significant group differences on both variables due to physical and environmental conditions of the residence. The cultural stereotypes might have influenced the responses of participants as suicide is considered most unacceptable act in our society. Furthermore, generalization of the findings is limited as population of the current study was too specific in order to apply the characteristics of attitudes towards suicide from this study on all the young adult population. The study suggests a number of avenues for further research by focusing on causes of and solutions to social isolation. Challenges for future studies are to generalize from current findings to more diverse non-student populations. Although, the present study cannot definitely resolve the prevailing issue of social isolation and suicide prevention but it may suggest building a suicide prevention program for university students and promoting their mental health education by considering many aspects. The main emphasis may be played in role of society, and families, in shaping suicidal attitudes among youngsters and promote university hostel climates that support the development and maintenance of healthy relationships and also introduce extracurricular activities for hostel residents. Applied interventions are needed for the students who demonstrate a risk for chronic feelings of social isolation or suicidal attitude.

**Conflict of Interest**

We certify that there is no actual or potential conflict of interest in relation to this article.

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