



# The Moderating and Mediating effects of Low Income and feelings of Perceived Deprivation on Madrassa Students

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## Abstract

Religious education in the country like Pakistan is considered mandatory and when it comes to make for life choices, majority of the parents chose religious education. Hence, majority madrassas students come from poor background because they cannot afford or acquire education in general subjects, compared to kids of their age studying in private and government schools which leads to feelings of perceived deprivation. To measure the impact of such deprived feelings on the madrassa students, this study applied quantitative method to examine the impact of perceived feelings. Out of 283 registered madrassas, 40 were selected randomly, whereas, 25 Questionnaires were distributed to each madrassa. The model was tested using structural equation modeling to examine the effects of low and high income, and the mediating impact of perceived deprivation on the criterion constructs. The moderating effects of low income indicate that six out of nine hypotheses were found significant; whereas the results for the impact of high income on criterion constructs demonstrate that out of the nine hypothesized relationships, only four were found significant. Nevertheless, the effects of perceived deprivation (mediation) demonstrate that the mediation with funding, religious gatherings and ethnic and religious affiliation have significant effects on the radicalization. On the other hand, the mediation effects between syllabus and radicalization were found statistically non-significant.

**Keywords:** Radicalization; Madrassa; Perceived Deprivation; Low Income; Sindh.

## 1. Introduction

In today's world, a radical is identified as a reformist, fanatical, militant and fundamentalist - one who wishes to change people's thoughts towards society and wants to change people's minds completely towards religious or ideological way of thinking. Previous research suggests that the perspective of an individual can be changed or shaped at the early stage; this change takes a long time and is a gradual process (Graaf & Bos, 2021). When people live in a particular environment for a

long time, the resultant outcome is their thinking and approach to see the world from specific angle (Kalra & Virinder, 2013). Madrassas provide a perfect outlet for such a change because children are admitted to madrassas in their early age (around 7 years of age). Generally, these children come from poor families who cannot afford their education and other expenses. Madrassas usually offer boarding and lodging (along with 3 times meals) which is their main attraction. These children stay at madrassas for the next 10 to 15 years. Children in madrassas are normally not allowed to be in contact with the outside world during their stay in Madrassas. Therefore, whatever they are told about the outside world by their teachers they accept as true. Due to the increased focus of international community on madrassas, these days the word 'Radical' is mostly used for the left wing religious groups. The researchers in the field of radicalization specifically use this term in the perspective of madrassas. Therefore, the authors, politicians, social scientists, and academicians are of the view that the term radical is for the changes into people's thinking at grass root level (Vicente & Vilela, 2021).

The religious groups being divided into different sects strictly adhere to the teaching of their religious sects and try to infuse same beliefs into the minds of their students. They believe that their school of thought is on the right path and their teachings are according to religious beliefs and practices. Such teachings turn their followers against other religious sects and other religions. This radical change leads people to believe that all those who disagree with their philosophy are evil people who should be punished. Once they decide to punish them, it is the last stage in the radicalization process. In order to propagate such idea the religious groups require regular vessels. Madrassas, mosques and Tablighi Jamaat prove invaluable to these groups for distributing literature at every level to gain more support at grass root level, (Subramaniam, 2018). Cohen (2004) and Burde et al. (2015) explore that a common place of prayer at the local level or at village level provides opportunity to the violent groups to reach to the common people.

The individuals, groups or organizations that are working for such a change in the society are using different tactics, such as introduce themselves as welfare organization, sometimes sectarian group working for the safety and security of fellow believers and sometimes they become groups of propagation and support the elimination of poverty and education, besides curbing the social, political, and economic discrimination from society.

Sousa (2011) explains model of pyramid that violence is rooted into social inequalities Ewing et al., (2022) and political settings of a society (Rebouças et al., 2022). It cannot be the work of a single individual to carry out such acts alone. However, Ahmed (2015), proposed that the spread of radicalization has different levels to attain their goals for example, Jamiat-e-ulema-e-Islam is a religious political party which has a large network of madrassa; apart from that they have missionaries and Tableeghi centres, through which they spread the words of their belief and distribute literature easily all around the country.

As a matter of fact, the radicalization process is poorly understood by the scholars, although various models and theories have been established to see how people turn towards radicalization but still much effort is required to understand the actual cause of it. Some authors have reported that there are three stages while others report that there are five stages in which people turn towards radicalization (Doosje et al., 2021; Trimbur, 2021; Barrera, 2021). Some people are attracted by the doctrines or beliefs, some receive training, whereas some resort to violence. So far, the scholars agree that different people hold extreme and unshakable beliefs still they do not resort to violence (Waghmar, 2013). Many studies have been conducted on radicalization but still many questions remain unanswered.

Different societies possess different values, religious beliefs and way of life and the process of radicalization in varying levels. Pakistan's major practicing belief is Sunni Islam (Qais & Haq, 2022).

Whereas, in Sindh majority of the population practice Sunni and Sufi beliefs (Chellaney, 2002). Although radical beliefs are practiced by minority sect (Deobandi) madrassas, however, the relations between Baralvi and Deobandi have never been of a peaceful co-existence (Roy, 2002).

## **2. Problem Statement**

As an independent entity, Khairpur state practiced Sufi brand of Islam from 1843 to 1955. Followers of Sufi philosophy believe and practice brand of Islam that practices and ensures religious harmony, peaceful co-existence among different religious sects and followers of other religions. Hence, the followers of this philosophy are considered liberals in their outlook. Practicing this philosophy, Talpur rulers (1843-1955) established 14 madrassas in different cities of Khairpur State and ensured that everyone can have access to education without bias on the basis of religion or religious sect. Khairpur State with limited population and fertile lands was able to educate and feed its citizens.

However, after the establishment of Pakistan in 1947, the government invited princely states to join. Consequently, the Khairpur state surrendered its sovereignty and joined Pakistan in 1955. Since the majority sect in Khairpur state was Shi'ite sect, therefore, soon after joining to Pakistan, different religious sects rallied to open their madrassas in different areas of Khairpur. Hence the number of madrassas started growing. On the other hand, the rapid growth of population and shrinking resources lead to the increased poverty in the region, which offered opportunity to some particular sects. Eventually, the number of madrassas related to some sects increased. After the Iranian revolution, the competition between Iran and Saudi Arabia to export their brand of Islam led to the increased funding of madrassas in Pakistan. Resultantly, madrassas started offering free food, clothing, and accommodation.

After the Iranian revolution, she (Iran) decided to export their religious beliefs, which led to the conflict between Iran and Saudi Arabia because the Saudis practice a particular form of Sunni Islam which is close to that of Deobandis in Indo-Pak region. This competition between the two states to export their version of religion led to proxy war in Pakistan. The things took the worst turn in Khairpur and caused sectarian conflict between Shia and Deobandi schools of thought. The Deobandi supported by Saudi Arabia to exert their influence started opening madrassas to cease control of the region and claim dominance. Since then, the sectarian and religiously motivated conflict has been a standard narrative of Khairpur district. This ongoing race for dominance brought number of madrassas from 14 in 1955 to 75 in 2000. The major reason to conduct this research study is the number of madrassas that went from 75 in 2000 to 283 madrassas in 2017. Hence, an urgent need was felt to undertake this study to examine the reason for rapid growth in number of madrassas in Khairpur district.

### **2.1 Research gap**

The review of the literature identified countless studies on terrorism, extremism, and radicalization in Pakistan. However, there are limited or a few studies on the subject matter in Sindh. Moreover, the research gap was identified from the theoretical and conceptual background and location of those studies. Literature suggests that most of the studies conducted on extremism, terrorism and radicalization were based in Khyber Pakhtunkhwa (KPK), Punjab and Balochistan. Furthermore, some socio-political (Rebouças et al., 2022) and sociological studies are conducted in Sindh, but they were focused on Karachi. Such as; conflict dynamics in Sindh by Yusuf and Hasan (2015). These studies have relied on information from newspaper on the areas of religious violence, radicalization and terrorism incidents in Sindh. It suggests that no systematic study was conducted on the aforesaid

areas. It was, therefore, important to conduct systematic research on the radical trends in madrassas, particularly madrassas of interior Sindh, such as: Khairpur district.

## 2.2 Objectives of the Study

Following objectives of the study were set to carry out the research pragmatically in order to achieve them at the end.

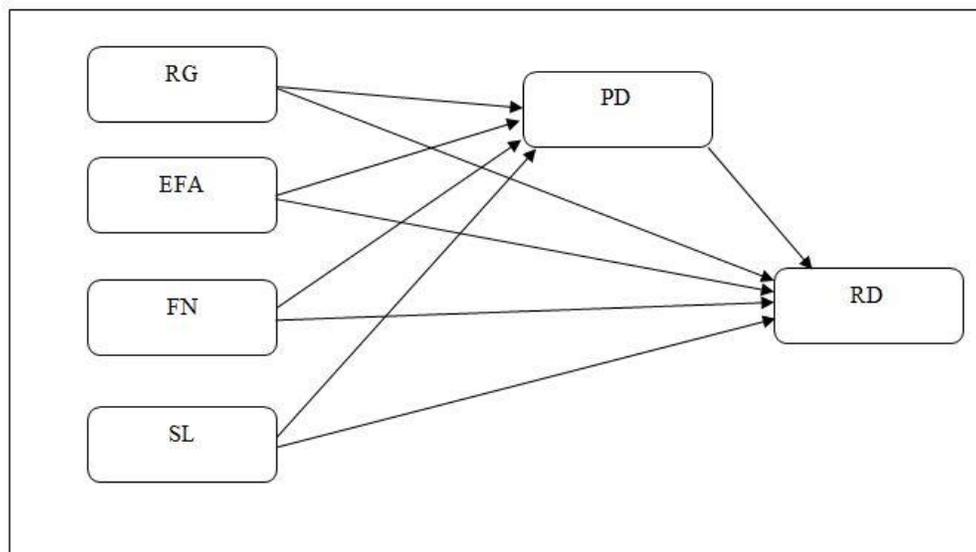
- 1(a). Identify the influence of religious gatherings on perceived deprivation.
- 1(b). Identify the influence of religious gatherings on radicalization.
- 2(a). Identify the influence of ethnic & religious affiliation on perceived deprivation.
- 2(b). Identify the influence of ethnic & religious affiliation on radicalization.
- 3(a). Identify the influence of funding on perceived deprivation.
- 3(b). Identify the influence of funding on radicalization.
- 4(a). Identify the influence of syllabus on perceived deprivation.
- 4(b). Identify the influence of syllabus on radicalization.
5. Identify the influence of perceived deprivation on radicalization.

## 3. Literature review

Researchers in Sociology, Psychology and International Relations are of the view that poverty leads to criminal behaviour, and it is the main source of all sorts of violence in society (Vicente and Vilela, 2021). Violence can be initiated in society for many reasons, such as religious, social, political or financial reasons. The study of Hegghammer (2011) and Ross (2009) based on the data collected from 172 religious fighters, endorses related results for international terrorism (Trimber, 2021). According to the data, the individuals were from poor class of society (Vicente & Vilela, 2021). However, Sageman (2004) and Hegghammer, (2011) data findings conclude that some participants belonged to stable families (middle class) and some were from poor families (lower middle class). Yet, study by Hashmi (2016) the director for Pakistan institute of peace studies, suggests three stages, which have considerable impact on the society and help to identify the trends and drives, as they affect different parts of the society. 1) Underdeveloped or poor with tribal structure such as; South Punjab and interior Sindh are the main source of radicalisation. The source of motivation in these areas is dearth of economic opportunities, disparity, slack governmental arrangements, which drive people towards religion and sectarian ferocity. 2) The people from the developed areas, such as; major cities like Lahore, Gujranwala, Faisalabad in Punjab and Sukkur, Hyderabad and Karachi in Sindh province, are driven by political slogans, which have appeal for Jihad (Holy war). It is assumed that radical groups like Lashkar-e-Taiba, Jaish-e-Muhammed and Al Qaeda and Hizb-e-Islami are rooted in these segments of society. 3) The major source of motivation for highly developed class of society is its split-up and estrangement from society. However, Margolin suggests that utter scarcity is not the main problem, but the challenge is relative deprivation, or the lack of openings related to opportunities (Margolin, 1977). On the other hand, Siddiqa (2011) disagrees with the fact that poverty alone (Zhang et al., 2022) can be the reason for radicalisation of society in Pakistan. Although the lower, middle and upper middle class of society are in the grip of increased trend of radicalisation, it is difficult to block this tendency in such situation. The impoverished class can become the members of these radical groups but the main motivation behind this trend is to apprehend the people above them (Siddiqa, 2011; Barrera, 2020). The students that study in Madrassas live in a controlled environment, where they are supposed to do only whatever their teachers ask them to do. They have no option or choice because they are fed, clothed, and sheltered by these madrassa teachers. Besides, they cannot go back to their families or complain due to the poor

family background. Further, the fear of severe punishment for complaining against the teachers also keeps them silent and obedient. Madrassa students live in an environment, where they have no contact with the outside world, whatever their teachers tell them or teach them is the all they know. Such a controlled environment makes them vulnerable to be used in such a way their madrassa teacher wants to use them. The study by Lipset (1960), suggested various methods, which could lead towards violent radicalisation. Strict and dominant behaviour of family and education level, develop an uncompromising attitude and set a perspective on the world politics. Above all, the economic uncertainty forces individuals to find immediate answer, to attain financial gains; in such a situation, one will not hesitate to use violent means to achieve violent goals. Poverty keeps poor people away from the complexities of politics, which in turn creates a society with forbearance. Absence of patience and tendency to find easy ways of solving poverty issues, paves the way for violent ideologies. It is an indicator towards radicalisation. Buendia (2005), in his findings, suggests that poverty (Zhang et al., 2022) in some regimes is the best circumstance and prospective recruiting ground for the violent religious groups. These studies suggest the increased tendencies towards radicalization and poverty as a main motivation source (Borum, & Patterson, 2019).

#### 4. Conceptual Model



**Figure 1.** Conceptual Model

#### 4.1 Hypotheses

Five hypotheses were developed out of which four hypotheses were divided into a, and b sections. However fifth was alone, with each hypothesis each objective of the study attained and overall objectives attained through overall hypotheses.

H1a. Religious gatherings are positively and significantly related to perceived deprivation.

H1b. Religious gatherings are positively and significantly related to radicalization.

H2a. Ethnic & religious affiliations are positively and significantly related to perceived deprivation.

H2b. Ethnic & religious affiliation are positively and significantly related to radicalization.

H3a. Funding is positively and significantly related to perceived deprivation.

H3b. Funding is positively and significantly related to radicalization.

H4a. Syllabus is positively and significantly related to perceived deprivation.

H4b. Syllabus is positively and significantly related to radicalization.

H5. Perceived deprivation is positively and significantly related to radicalization.

## 5. Methodology

This study applied quantitative method to collect the data from the target population. The data was collected through close-ended questionnaire. Subsequently, the data was analysed and interpreted by using SPSS and PLS-SEM. Cronbach's alpha was measured through SPSS and the demographic profiles of the participants were also determined by SPSS. PLS-SEM was used for hypotheses testing and model verification.

*Population:* The data was collected from the students of registered madrassas who were enrolled in various levels of religious study based in Khairpur District.

*Sample:* Approximately 1000 close-ended questionnaires were distributed among the students, out of which 748 considered fit for results and discussions. However, 32 questionnaires were discarded due to the variety of reasons, such as incomplete responses and similar answers.

*Measurement:* All responses received through the close-ended questionnaire based on five-point Likert scale which showed the level of agreement or disagreement with the question item given in the instrument for which the data was collected from the target population of the study.

## 6. Results and Discussion

**Table 1.** Response Rate of Questionnaire Survey

| Name of Unit | Questionnaire Distributed | Questionnaire Returned | Response Rate in % |
|--------------|---------------------------|------------------------|--------------------|
| Gambat       | 125                       | 114                    | 91.2%              |
| Kingri       | 125                       | 103                    | 82.4%              |
| Kot Digi     | 125                       | 95                     | 76.0%              |
| Sobhodero    | 125                       | 104                    | 83.2%              |
| Khairpur     | 125                       | 120                    | 96.0%              |
| Nara         | 125                       | 68                     | 54.4%              |
| Mirwah       | 125                       | 87                     | 69.6%              |
| Faiz Ganj    | 125                       | 89                     | 71.2%              |
| <b>Total</b> | <b>1000</b>               | <b>780</b>             | <b>78%</b>         |

Above table highlights the response rate of the survey. A sum of 1000 close-ended questionnaires was distributed among the students of madrassas based in District Khairpur, Sindh, Pakistan, out of which 780 questionnaires were received back. There were 32 questionnaires which were inappropriately filled. Therefore, these questionnaires were discarded and remaining 748 questionnaires were considered fit for the data analysis and interpretation.

**Table 2.** Results of Cronbach's Alpha

| Constructs                                | Cronbach's Alpha |
|---|------------------|
| Ethnicity and Religious Affiliation (ERA) | 0.759            |
| Syllabus (SL)                             | 0.781            |
| Funding (FN)                              | 0.836            |
| Religious Gatherings (RG)                 | 0.806            |
| Perceived Deprivation (PD)                | 0.826            |

|                     |       |
|---------------------|-------|
| Radicalization (RD) | 0.716 |
|---------------------|-------|

Above table highlights the Cronbach's alpha of all individual variables. Cronbach's alpha is the internal consistency of items measuring a given variable of the study. According to the literature Cronbach's alpha should be equal or greater than 0.70 (Sekaran & Bougie, 2000; Nunally & Bernstein, 1978). All the variables were measured significant. Therefore, considered fit for the further data analysis and interpretation.

**Table 3.** Demographic Profile of the Participants of Survey

|                                   | Frequency | Percentage |
|-----------------------------------|-----------|------------|
| <b>Gender</b>                     |           |            |
| Male                              | 748       | 100.0      |
| Female                            | 0         | 100.0      |
| <b>Age</b>                        |           |            |
| 10-15                             | 53        | 7.08       |
| 16-20                             | 210       | 28.07      |
| 21-25                             | 301       | 40.24      |
| 26-30                             | 88        | 11.76      |
| 31-35                             | 46        | 6.15       |
| 36-40                             | 30        | 4.01       |
| 40 and Above                      | 20        | 2.68       |
| Total (N)                         | 748       | 100.00     |
| <b>Monthly Income</b>             |           |            |
| 10k-20k                           | 485       | 64.84      |
| 21k-30k                           | 147       | 19.65      |
| 31k-40                            | 25        | 3.34       |
| 41k-50k                           | 49        | 6.55       |
| 51-60k                            | 17        | 2.27       |
| 61k-70k                           | 22        | 2.94       |
| 71 and Above                      | 3         | 0.04       |
| Total (N)                         | 748       | 100.00     |
| <b>Family Size</b>                |           |            |
| 1-3                               | 50        | 6.68       |
| 4-6                               | 125       | 16.71      |
| 7-9                               | 301       | 40.24      |
| 10-12                             | 248       | 33.16      |
| 13 and Above                      | 24        | 3.20       |
| Total (N)                         | 748       | 100.00     |
| <b>Agricultural Lands (Acres)</b> |           |            |
| No Land                           | 127       | 16.98      |
| 1-5                               | 457       | 61.09      |
| 6-10                              | 95        | 12.71      |
| 11-15                             | 32        | 4.28       |
| 16-20                             | 17        | 2.27       |

|                            |     |        |
|----------------------------|-----|--------|
| 21-25                      | 19  | 2.54   |
| 26 and Above               | 1   | 0.01   |
| Total (N)                  | 748 | 100.00 |
| <b>Own House</b>           |     |        |
| Yes                        | 701 | 93.71  |
| No                         | 47  | 6.28   |
| Total (N)                  | 748 | 100.00 |
| <b>Own Milking Animals</b> |     |        |
| Yes                        | 712 | 95.18  |
| No                         | 26  | 4.81   |
| Total (N)                  | 748 | 100.00 |
| <b>Own TV</b>              |     |        |
| Yes                        | 401 | 53.60  |
| No                         | 347 | 46.39  |
| Total (N)                  | 748 | 100.00 |
| <b>Own Refrigerator</b>    |     |        |
| Yes                        | 589 | 78.74  |
| No                         | 159 | 21.26  |
| Total (N)                  | 748 | 100.00 |
| <b>Own Motor Bike</b>      |     |        |
| Yes                        | 525 | 70.18  |
| No                         | 223 | 29.81  |
| No                         | 00  | 00     |
| <b>Own Car</b>             |     |        |
| Yes                        | 15  | 2.00   |
| No                         | 733 | 97.99  |
| Total (N)                  | 748 | 100.00 |
| <b>Food</b>                |     |        |
| Yes                        | 748 | 100.00 |
| No                         | 00  | 00     |
| Total (N)                  | 748 | 100.00 |
| <b>Clothing</b>            |     |        |
| Yes                        | 748 | 100.00 |
| No                         | 00  | 00     |
| Total (N)                  | 748 | 100.00 |
| <b>Accommodation</b>       |     |        |
| Yes                        | 748 | 100.00 |
| No                         | 00  | 00     |
| Total (N)                  | 748 | 100.00 |
| <b>Sports</b>              |     |        |

|   |                  |                   |
|---|------------------|-------------------|
| Yes                                     | 00               | 00                |
| No                                      | 748              | 100.00            |
| Total (N)                               | 748              | 100.00            |
|   | <b>Frequency</b> | <b>Percentage</b> |
| <b>Tour</b>                             |                  |                   |
| Yes                                     | 00               | 00                |
| No                                      | 748              | 100.00            |
| Total (N)                               | 748              | 100.00            |
| <b>Debate</b>                           |                  |                   |
| Yes                                     | 00               | 00                |
| No                                      | 748              | 100.00            |
| Total (N)                               | 748              | 100.00            |
| <b>Examination Pattern in Madrassas</b> |                  |                   |
| <b>Exam Oral</b>                        |                  |                   |
| Yes                                     | 748              | 100.00            |
| No                                      | 00               | 00                |
| Total (N)                               | 748              | 100.00            |
| <b>Exam Written</b>                     |                  |                   |
| Yes                                     | 00               | 00                |
| No                                      | 748              | 100.00            |
| Total (N)                               | 748              | 100.00            |
| <b>Exam Both</b>                        |                  |                   |
| Yes                                     | 00               | 00                |
| No                                      | 748              | 100.00            |
| Total (N)                               | 748              | 100.00            |

Above table highlights the demographic profile of the participants of the survey. In terms of gender, most of the participants, who took part in the survey with percentage of 100 out of 100, were male. The majority of the participants of the study with the percentage of 40.24 were between the age group of (21-25), while, remaining participants of the survey belonged to the other age groups. Further, in respect of the level of income, a significant majority of the participants of the survey with the percentage of 64.84 were found between the income groups of (10k-20k). However, the remaining participants of the survey were found in the other income groups. In terms of family size, the majority of the participants of the survey with the percentage of 40.24 had the family sizes of (7-9), whereas the remaining participants of the survey had other family size. Further, the majority of the participants of the survey with the percentage of 61.09 had (1-5) acres of agricultural land, while the remaining participants of the survey had other agricultural lands. Moreover, the majority of the participants with the percentage of 93.71 were found to have their own house. However, the remaining participants did not have own house. Further, a large majority of the participants with the percentage of 95.18 were found in possession of milking animals, but remaining participants of the study did not have animals. Furthermore, the majority of the participants with the percentage of 53.60 had own television, whereas the remaining participants of the study did not have own television. In addition, the majority of the participants with the percentage of 78.74 had own refrigerators, while the remaining participants of the study did not have own refrigerators. Besides, majority of the participants of the survey with the percentage of 70.18 had own motor bike. However, the remaining participants did not have own motor bike. Additionally, a huge majority of the participants of the study with the percentage of 97.99 did not have own car. However, the remaining participants had own car. While the food, clothing and accommodation was provided by the madrassas. Sports and

debates were not allowed and there was only oral examination taken from students of madrassas at a specific interval.

**Table 4.** Results of Factor Loading

|   | Component |      |      |      |      |      |
|---|-----------|------|------|------|------|------|
|   | 1         | 2    | 3    | 4    | 5    | 6    |
| PD5   | .734      |      |      |      |      |      |
| PD6   | .733      |      |      |      |      |      |
| PD3   | .729      |      |      |      |      |      |
| PD4   | .686      |      |      |      |      |      |
| PD7   | .732.     |      |      |      |      |      |
| FN2   |           | .785 |      |      |      |      |
| FN3   |           | .765 |      |      |      |      |
| FN1   |           | .721 |      |      |      |      |
| FN4   |           | .672 |      |      |      |      |
| RG4   |           |      | .783 |      |      |      |
| RG3   |           |      | .729 |      |      |      |
| RG2   |           |      | .693 |      |      |      |
| RG1   |           |      | .669 |      |      |      |
| SL3   |           |      |      | .752 |      |      |
| SL1   |           |      |      | .749 |      |      |
| SL2   |           |      |      | .715 |      |      |
| SL4   |           |      |      | .654 |      |      |
| ERA3  |           |      |      |      | .797 |      |
| ERA4  |           |      |      |      | .747 |      |
| ERA2  |           |      |      |      | .624 |      |
| ERA1  |           |      |      |      | .605 |      |
| RD3   |           |      |      |      |      | .774 |
| RD4   |           |      |      |      |      | .723 |
| RD2   |           |      |      |      |      | .706 |
| RD1   |           |      |      |      |      | .630 |
| Extraction Method: Principal Component Analysis.    |           |      |      |      |      |      |
| Rotation Method: Varimax with Kaiser Normalization. |           |      |      |      |      |      |
| a. Rotation converged in 6 iterations.              |           |      |      |      |      |      |

**Least cut-off rate 0.70 loading**

**Table 5.** Results of average variance extracted.

| Variable(s) | AVE   |
|-------------|-------|
| <b>ERA</b>  | 0.558 |
| <b>PD</b>   | 0.569 |
| <b>FN</b>   | 0.547 |
| <b>RG</b>   | 0.510 |
| <b>SL</b>   | 0.554 |

|  |       |
|--|-------|
| <b>RD</b>  | 0.593 |
| <ul style="list-style-type: none"> <li>Note: RG: Religious Gatherings. ERA: Ethnic and religious affiliation. FN: Funding. SL: Syllabus. PD: Perceived deprivation. RD: Radicalization.</li> </ul> |       |

**Least cut-off rate 0.50 Average Variance extracted (AVE)**

**Table 6.** Results of composite reliability

| <b>Construct</b>                       | <b>Composite reliability (CR)</b> |
|--|-----------------------------------|
| Radicalization (RD)                    | 0.718                             |
| Religious Gathering (RG)               | 0.722                             |
| Funding (FN)                           | 0.851                             |
| Perceived deprivation (PD)             | 0.762                             |
| Ethnic and Religious Affiliation (ERA) | 0.725                             |
| Syllabus (SL)                          | 0.814                             |

**Least cut-off rate 0.70**

**Table 7.** Results of Convergent and Discriminant Validity

|            | <b>ERA</b>   | <b>PD</b>    | <b>FN</b>    | <b>RG</b>    | <b>SL</b>    | <b>RD</b>    |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>ERA</b> | <b>0.747</b> |              |              |              |              |              |
| <b>PD</b>  | 0.453        | <b>0.754</b> |              |              |              |              |
| <b>FN</b>  | 0.537        | 0.488        | <b>0.740</b> |              |              |              |
| <b>RG</b>  | 0.592        | 0.439        | 0.664        | <b>0.714</b> |              |              |
| <b>SL</b>  | 0.532        | 0.405        | 0.632        | 0.633        | <b>0.744</b> |              |
| <b>RD</b>  | 0.589        | 0.748        | 0.566        | 0.456        | 0.459        | <b>0.770</b> |

- Note: RG: Religious Gatherings. ERA: Ethnic and religious affiliation. FN: Funding. SL: Syllabus. PD: Perceived deprivation. RD: Radicalization.

**Table 8.** Results of Hypotheses Testing

|     |   |    | Estimate | S.E.  | C.R.   | P     | Remarks   |
|-----|---|----|----------|-------|--------|-------|-----------|
| RG  | ➔ | PD | 0.242    | 0.039 | 6.159  | 0.001 | Supported |
| ERA | ➔ | PD | 0.115    | 0.036 | 3.193  | 0.001 | Supported |
| FN  | ➔ | PD | 0.093    | 0.038 | 2.464  | 0.014 | Supported |
| SL  | ➔ | PD | 0.23     | 0.043 | 5.394  | 0.001 | Supported |
| SL  | ➔ | RD | 0.527    | 0.06  | 8.783  | 0.001 | Supported |
| FN  | ➔ | RD | 0.051    | 0.033 | 1.528  | 0.127 | Rejected  |
| ERA | ➔ | RD | 0.141    | 0.035 | 3.987  | 0.001 | Supported |
| RG  | ➔ | RD | -0.021   | 0.032 | -0.678 | 0.498 | Rejected  |
| PD  | ➔ | RD | 0.227    | 0.04  | 5.659  | 0.001 | Supported |

Note:

RG: Religious Gatherings. ERA: Ethnic and religious affiliation. FN: Funding. SL: Syllabus. PD: Perceived deprivation. RD: Radicalization.  
 Estimates: Standard regression weight ( $\beta$ ).  
 SE: Standard Error.  
 CR: Composite Reliability.  
 P: Probability value.

### 6.1 Results of Moderating Effects for Low Income

The findings of low income (moderator), in table 1, indicates that six out of nine hypothesized path related to the independent and dependent variables were found significant, such as; funding (FN) with Perceived deprivation (PD) with CR value of 2.316 ( $> \pm 1.96$ ) which was supported and statistically significant at  $p < 0.021$ . Similarly, ERA with PD and SL, FN, ERA with RD were found statistically significant at  $p < .05$ . Whereas the value of three hypothesized paths between religious gatherings and perceived deprivation, syllabus and perceived deprivation, perceived deprivation and radicalization indicates that these hypothesized paths did not exceed the cut-off point value i.e.  $> \pm 1.96$ . Hence, they were found insignificant statistically, which indicates that the prevailing conditions in the madrasahs did not support the hypothesized relationship between these hypotheses.

Exploring the results of hypothesized paths in table 1 suggests that out of nine proposed hypotheses, six hypothesized paths, (H1, H2a, H2, H3b, H4b, H5a and H5b) were found statistically significant and supported, whereas three hypotheses (H1, H3a and H4a) were rejected on the basis of their coefficient values. The standard estimates ( $\beta$ ) for hypotheses H2a=0.182, H2b=0.132, H3b=0.29, H4b=0.086, H5a=0.182 and H5b=0.149 respectively were supported and statistically significant. The above results for supported hypothesized paths indicate that these constructs have great influence on the criterion (dependent) Variable (i.e. practices in past studies indicate that the higher the  $\beta$  value, the greater the impact of predicted variables). Whereas, three hypotheses with standard estimates at H1=0.008, H3a=0.01 and H4a=0.041 were found not significant statistically, hence these hypotheses were rejected.

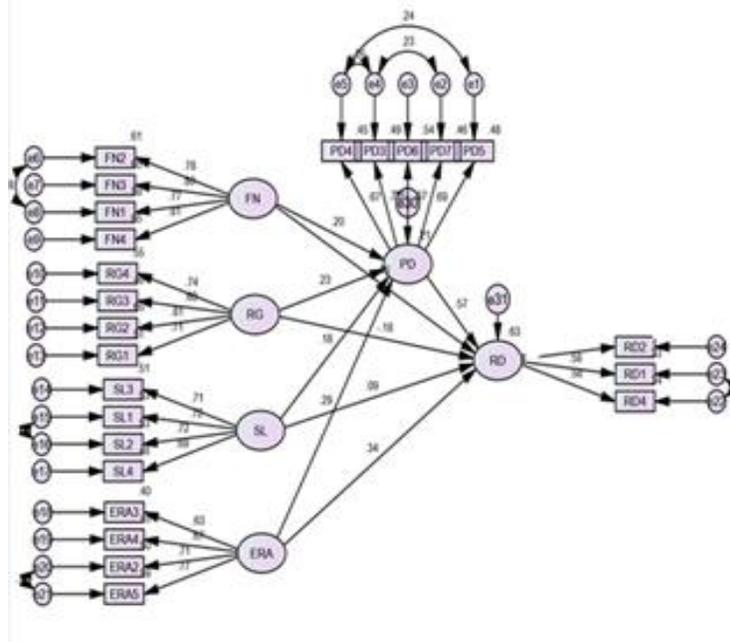


Figure 2. Structural Model for Low income (Poor)



**Table 10.** Moderating Impact of High Income

|          | Estimate | S.E.  | C.R.  | P     | Remark    |
|----------|----------|-------|-------|-------|-----------|
| RG → PD  | 0.569    | 0.126 | 4.509 | 0.001 | Supported |
| ERA → PD | -0.214   | 0.133 | 1.607 | 0.108 | Rejected  |
| FN → PD  | -0.214   | 0.114 | 1.867 | 0.062 | Rejected  |
| SL → PD  | 0.307    | 0.119 | 2.58  | 0.01  | Supported |
| SL → RD  | 0.287    | 0.079 | 3.644 | 0.001 | Supported |
| FN → RD  | -0.004   | 0.037 | 0.095 | 0.925 | Rejected  |
| ERA → RD | 0.084    | 0.047 | 1.764 | 0.078 | Rejected  |
| RG → RD  | 0.206    | 0.065 | 3.171 | 0.002 | Supported |
| PD → RD  | 0.071    | 0.039 | 1.815 | 0.07  | Rejected  |

Note: RG: Religious Gatherings. ERA: Ethnic and religious affiliation. FN: Funding. SL: Syllabus. PD: Perceived deprivation. RD: Radicalization.  
Estimates: Standard regression weight ( $\beta$ ). SE: Standard Error. CR: Composite Reliability.  
P: Probability value

### 6.3 Structural Model Analysis of Mediating effects of Perceived Deprivation (PD)

The structural model test results for mediating effects of perceived deprivation influencing the correlations between independent and dependant variable, as presented in Table 3, suggest that out of four paths for mediating effects, three paths were found statistically significant and supported, such as the path among FN-->PD-->RD with standard regression estimates at 0.127. These statistical results were found significant statistically and supported at p-0.002. Similarly, the mediating path for relationships between RG--> PD-->RD and ERA-->PD-->RD was found statistically significant. Whereas, the hypothesized path for SL --> PD-->RD was found statistically non-significant and so rejected.

**Table 11.** Mediating effects of Perceived Deprivation

|                             | Estimate | Lower | Upper | P            | Supported/<br>Rejected |
|-----------------------------|----------|-------|-------|--------------|------------------------|
| <b>FN --&gt;PD--&gt;RD</b>  | 0.127    | 0.070 | 0.205 | <b>0.002</b> | <b>Supported</b>       |
| <b>RG --&gt; PD--&gt;RD</b> | 0.060    | 0.018 | 0.11  | <b>0.017</b> | <b>Supported</b>       |
| <b>SL --&gt;PD--&gt;RD</b>  | 0.049    | 0.005 | 0.103 | <b>0.069</b> | <b>Rejected</b>        |
| <b>ERA--&gt;PD--&gt;RD</b>  | 0.121    | 0.069 | 0.181 | <b>0.001</b> | <b>Supported</b>       |

## 7. Discussion

Pakistan as an underdeveloped country has witnessed increase in poverty over the last three decades, which led to the increased number of madrassas. Madrassas' main attraction is the free food, clothing, and accommodation. Therefore, majority of the poor children register into these madrassas. Apart from that, there are multiple benefits for parents; 1) they do not have to pay for their child's education, 2) after getting education, the children will secure job in a mosque to lead the prayer (Pesh imam), or he can get a job as madrassa teacher and bring some income to family, 3) above all the parents feel comfortable with the fact that they are performing religious duty, at the same time the child is earning for the family as well. This study attempted to understand the moderating impact of low income and the feeling of perceived deprivation on madrassa students in Khairpur district. To understand the overall impact and factors leading to madrassa radicalization, the models were tested for moderating and mediating effects. The test of the structural model was conducted to find out whether there is any

relationship between low income and increased number of madrassas. The study findings demonstrate that low income has a considerable effect on the increased number of madrassas and madrasa education.

The results of the structural model for low-income moderating effects indicate that out of nine hypothesized paths, six paths (H2a, H2b, H3b, H4b, H5a and H5b) were found statistically significant, and three hypothesized paths (H1, H3a and H4a) were found insignificant. For example, funding and ethnic and religious affiliation have a positive relationship with perceived deprivation. Whereas funding, religious gatherings, syllabus and ethnic and religious affiliation show a positive relationship with radicalization. These hypothesized paths show a significant effect of low income on their correlations. The fact that the data strongly supports both relationships leads to the greater chance of radicalization through madrassas. The study by Ali (2009), argues that there is an urgent need for madrasa reforms, particularly in the madrasa syllabus, which this study finds as a strong contributing factor towards radicalization. Similarly, the study by Identity (2001), suggests that the youngsters, who frequently take part in the religious and expressive gathering or activities, feel more motivated mentally and psychologically. Therefore, the above results suggest that religious gatherings' construct is a strong factor in the increased tendencies of radicalization and religiously motivated violence. Besides, the study findings suggest that funding has a positive influence on the perceived deprivation. All the same, the past studies by Hoodbhoy (2009) and Chandran, (2003), suggest that the madrasa funding play a very crucial role from different perspectives 1) it affects madrassas' attitude towards reforms. Pakistan government is trying to introduce a moderate education system in madrassas through a new education policy, but they are facing inflexible resistance from madrasa clerics. One of the biggest factors of this resistance is the fear of losing financial control and more checks by the state. 2). Funding of these madrassas is a major factor in exerting control over madrassas (organizations, groups, countries, and political actors providing financial support want to continue their influence over madrassas and use them for their political and power purposes whenever and wherever necessary). Above all, the madrasa clerics prosper through the funding, which they are unwilling to give up in any case. 3). Due to this funding, madrassas enrol millions of poor and orphan children. However, the hypothesized paths i.e. religious gatherings and syllabus have an insignificant relationship with the perceived deprivation and do not show any moderating effect; hence, they were rejected. Meanwhile the low-income moderating impact on the relationship between perceived deprivation and radicalization was found statistically insignificant. Therefore, this path was rejected as well.

The extended structural model test was conducted to examine the impact of high income on the latent construct. The study's findings demonstrate that out of nine hypothesized paths, four paths i.e., religious gatherings and syllabus are found statistically significant with perceived deprivation and radicalization. This indicates that the moderating effect of high income is positively present in these relationships. The rationale behind the rejection of these construct relationships can be because of the reason that the children coming from rich or upper middle class do not experience poverty and financial issues. Hence, the only factors which can lead them to the radical tendencies can be the syllabus and religious gatherings, whereas they do not experience feelings of perceived deprivation. However, the high-income effects for the relationship of funding and ethnic and religious affiliation are statistically insignificant for the perceived deprivation and radicalization. It is evident from the fact that perceived deprivation does not have direct relationship to radicalization, however, the factors such as; funding, religious gatherings, syllabus and ethnic and religious affiliation play crucial role in the increased tendencies of radicalization in madrassas.

The model was also tested for the mediating effects of the perceived deprivation on criterion predictive and outcome variables. The results demonstrate the support for mediating effects of perceived deprivation on the relationship between funding and radicalization on the one hand and for ethnic and religious affiliation and radicalization on the other hand. The findings demonstrate the partial mediation for these relationships since the value of beta was reduced. However, the mediating effects of perceived deprivation were present between the religious gatherings and radicalization given the significance value acquired at p-value. 0.017, which is significant and with the threshold of  $p < .05$ . However, this path cannot be counted because it is rejected in the main analysis. Nevertheless, perceived deprivation's mediating impact is found statistically insignificant for the relationship between syllabus and radicalization. Thus, the findings of mediating effects of funding with the perceived deprivation suggest that funding can significantly influence the perceived level of deprivation on madrasa students, leading to radicalization. Past studies by (Tahiri & Grossman, 2013; Toizer, 2016; Saraswati, 2018; Greitemeyer & Sagioglu, 2019), on the perceived relative deprivation and its link with violence, suggest that individuals experiencing the perceived feeling of unfair treatment, injustice, inequality, frustration, sense of insecurity and with the poor family background are prone to violence and do not hesitate to use violence to achieve their political, social and economic objectives. The other positive effects of mediation between ethnic and religious affiliation and perceived deprivation lead to the understanding that the strong ethnic and religious bond between madrasa students from the same ethnic and religious background can raise the feelings of deprivation in a situation where they believe that their fellow community members and a religious sect are being treated unfairly and unjustly, this feeling, in turn, can lead to frustration and anger, which eventually can make them vulnerable to the violent groups. The research conducted on radicalization by Moghaddam, (2005), argues about the stair case scenario regarding terrorism, which speaks of ground level. The students studying in madrassas between the age of 10 to 25 years (Ghumro, 2022) can be seen at the ground level as per Moghaddam model. Most of the scholars have consensus on the point that radicalization is a process, (Doosje et al., 2016) therefore, it should be dealt with accordingly. Unless we address the root cause and factors that help increase radical tendencies into individuals we cannot stop or eliminate terrorism (which is assumed outcome of the radicalization process), therefore, madrassas can be seen as an initial stage into the radicalization process (Abbas & Syed, 2021).

## 8. Conclusion

The proposed model for this study clarified the overall hypothesized relationship between the independent and the dependent variables. The first factor extracted in PCA explained 31.517 percentage of overall variance for model, while variance for remaining factors was measured by five. The independent variables outcome for, FN, RG, SL and ERA with dependent variable PD were found significant, whereas the findings for relationship between ERA and SL with RD were found significant and relationship between FN and RG with RD was found insignificant. Then relationship between the perceived deprivations (PD) and radicalization (RD) was measured. The findings suggest that the perceived deprivation has significant influence towards radicalization of madrassas in Khairpur district of Sindh, Pakistan.

The extended test of Structural model was conducted to examine the moderating impact of low income and high income on the latent construct relationship. The result for moderating effects of low income suggests that out of nine hypothesized paths for low income, six paths (H2a, H2b, H3b, H4b, H5a and H5b) were found statistically significant. Nevertheless, the three hypothesized paths

(H1, H3a and H3b) were statistically insignificant showing no moderating effects of low income on the criterion constructs and so they were rejected.

Similarly, the extended structural model test was conducted to measure the moderating effects of high income on the latent construct relationships. The results of the selected paths for measuring the impact of high income demonstrate that out of nine paths, four paths (H3a, H3b, H4a and H4b) were found statistically significant. However, five paths (H1, H2a, H2b, H5a and H5b) were found statistically insignificant and therefore were rejected.

Thereafter, the mediation analysis of predicting paths was conducted to find out the impact of perceived deprivation on the latent construct relationship. The results of the test demonstrate that the partial mediation effects of the perceived deprivation were present between the relationship impact of perceived deprivation for FN-->PD-->RD and ERA-->PD-->RD - the predicting and outcome variables, whereas, the significance value was found statistically significant at the suggested threshold of  $p \leq .05$ , which demonstrates that the mediation is present but this hypothesized path for ERA-->PD-->RD cannot be counted because the correlations were rejected in the main analysis. However, the mediating impact of perceived deprivation for the relationship between syllabus and radicalization (SL-->PD-->RD) was found statistically insignificant and it was therefore rejected.

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## References

- Abbas, S. A., & Syed, S. H. (2021). Sectarian terrorism in Pakistan: Causes, impact and remedies. *Journal of Policy Modeling*, 43(2), 350-361.
- Ahmad, B. (2015). *Radicalization in Pakistan. The Radicalization of Pakistan and the Spread of Radical Islam in Pakistan* (Master's thesis).
- Ali, S. H. (2009). Pakistan's madrassas: The need for internal reform and the role of international assistance.
- Alma'itah, Q. S., & Ul Haq, Z. (2022). The concept of Messiah in abrahamic religions: A focused study of the eschatology of Sunni islam. *Heliyon*, 8(3).
- Amer, M. (2018). Purification of Hearts: Rituals, Devotion and Re-creation among the Minhajul Quran Followers in Europe.

- Barrera, F., Lopez, C. M., Casas, F. C., Di Sciullo, M., Ramirez, D., & Gomez-Mejiba, S. (2020). Myeloperoxidase and Protein-radicalization are Linked to Insulin Resistance in the Obese Adipose Tissue. *Free Radical Biology and Medicine*, 159, S38.
- Borum, R. (2011). Radicalization into violent extremism I: A review of social science theories. *Journal of strategic security*, 4(4), 7-36.
- Buendia, R. G. (2005). The state-Moro armed conflict in the Philippines Unresolved national question or question of governance?. *Asian Journal of Political Science*, 13(1), 109-138.
- Borum, R., & Patterson, T. D. (2019). Juvenile Radicalization Into Violent Extremism: Investigative and Research Perspectives. *Journal of the American Academy of Child and Adolescent Psychiatry*, 58(12), 1142-1148.
- Burde, D., Middleton, J. A., & Wahl, R. (2015). Islamic studies as early childhood education in countries affected by conflict: The role of mosque schools in remote Afghan villages. *International Journal of Educational Development*, 41, 70-79.
- Chellaney, B. (2001). Fighting terrorism in Southern Asia: The lessons of history. *International Security*, 26(3), 94-116.
- Comrey, A. L., & Lee, H. B. (1992). Interpretation and application of factor analytic results. *Comrey AL, Lee HB. A first course in factor analysis*, 2, 1992.
- De Graaf, B. A., & Van den Bos, K. (2021). Religious radicalization: social appraisals and finding radical redemption in extreme beliefs. *Current Opinion in Psychology*, 40, 56-60.
- De Sousa, AnabelaPreciosa. (2011). "Fundamentalism and extremism in Pakistan: the role of governance and policy." San Francisco State University.
- Doosje, B., Moghaddam, F. M., Kruglanski, A. W., De Wolf, A., Mann, L., & Feddes, A. R. (2016). Terrorism, radicalization and de-radicalization. *Current Opinion in Psychology*, 11, 79-84.
- Eble, A., Frost, C., Camara, A., Bouy, B., Bah, M., Sivaraman, M., ... & Elbourne, D. (2021). How much can we remedy very low learning levels in rural parts of low-income countries? Impact and generalizability of a multi-pronged para-teacher intervention from a cluster-randomized trial in the Gambia. *Journal of development economics*, 148, 102539
- Ewing, S. W. F., Karalunas, S. L., Kenyon, E. A., Yang, M., Hudson, K. A., & Filbey, F. M. (2022). Intersection between social inequality and emotion regulation on emerging adult cannabis use. *Drug and alcohol dependence reports*, 3, 100050.
- Sabic-El-Rayess, A. (2020). Epistemological shifts in knowledge and education in Islam: A new perspective on the emergence of radicalization amongst Muslims. *International Journal of Educational Development*, 73, 102148.
- Gartenstein-Ross, D., & Grossman, L. (2009). *Homegrown terrorists in the US and UK: An empirical examination of the radicalization process* (p. 12). Washington, DC: FDD Press.
- Ghumro, A. K. (2022). The Growth of Madrassas and Perceived Radicalization: The Case of the Khairpur District, Sindh, Pakistan. *MJIR/ Malaysian Journal of International Relations*, 10(1), 22-44.
- Ghumro, A. K. Inequality, Education and Radicalization: Historical Narrative of Madrassas in the Khairpur District of Sindh, Pakistan.
- Greitemeyer, T., & Sagioglou, C. (2019). The impact of personal relative deprivation on aggression over time. *The Journal of social psychology*, 159(6), 664-675.
- Hashmi, A. S. (2016). Religious Radicalisation in Pakistan. *Strategic Studies*, 36(3), 58-77.
- Hegghammer, T. (2011). Jihad in Saudi Arabia. Violence and pan-islamism since 1979. *Politique étrangère*, (01), 198-201.

- Hoodbhoy, Pervez. (2009). "The Saudization of Pakistan." *News Line Magazine* Retrieved from <https://newslinemagazine.com/magazine/the-saudi-isation-of-pakistan/>
- Identity, S. (2001). Whatever Happened to the Jock, the Brain, and the Princess?. *Journal of Adolescent Research*, 16(5), 429-455.
- Kalra, V. S., & Butt, W. M. (2023). 'In One Hand a Pen in the Other a Gun': Punjabi Language Radicalism in Punjab, Pakistan. In *State of Subversion* (pp. 130-155). Routledge India.
- Kishwar, S., & Alam, K. (2021). Educational mobility across generations of formally and informally employed: Evidence from Pakistan. *International Journal of Educational Development*, 87, 102505.
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.
- Lipset, S. M. (1960). Party systems and the representation of social groups. *European Journal of Sociology/Archives Européennes de Sociologie*, 1(1), 50-85.
- Margolin, J. (1977). Psychological perspectives in terrorism. *Terrorism: Interdisciplinary Perspectives*. New York: John Jay, 273-74.
- McCauley, C., & Moskaleiko, S. (2008). Mechanisms of political radicalization: Pathways toward terrorism. *Terrorism and political violence*, 20(3), 415-433.
- Moghaddam, F. M. (2005). The staircase to terrorism: a psychological exploration. *American psychologist*, 60(2), 161.
- Rebouças, P., Falcão, I. R., & Barreto, M. L. (2022). Social inequalities and their impact on children's health: a current and global perspective. *Jornal de pediatria*, 98, 55-65.
- Roy, O. (2002). *Islamic radicalism in Afghanistan and Pakistan* (Vol. 6, pp. 3-24). Geneva: UNHCR.
- Sageman, M. (2004). *Understanding terror networks*. University of Pennsylvania press.
- Saraswati. (2018). "The Making of A Terrorist: A Critical Reading of John Updike's Terrorist." *Journal of English Language and Literature JOELL* 5(1):27-31.
- Siddiq, Ayesha. (2011, August 13). "Rationalizing the Jihadi Discourse." *Express Tribune*.
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5): pearson Boston.
- Tahiri, H., & Grossman, M. (2013). Community and radicalisation: An examination of perceptions, ideas, beliefs and solutions throughout Australia.
- Toizer, B. (2016). Perceived essentialism, group relative deprivation, and collective action.
- Trimbur, M., Amad, A., Horn, M., Thomas, P., & Fovet, T. (2021). Are radicalization and terrorism associated with psychiatric disorders? A systematic review. *Journal of psychiatric research*, 141, 214-222.
- Vicente, P. C., & Vilela, I. (2022). Preventing Islamic radicalization: Experimental evidence on anti-social behavior. *Journal of Comparative Economics*, 50(2), 474-485.
- Waghmar, B. (2013). Yet another Stan? Talibanisation and Islamic Radicalism in Balochistan and Southwest Asia.