Annals of Human and Social Sciences
www.ahss.org.pk

RESEARCH PAPER

Cyber Terrorism and Cyber Security after 9/11: Case Study of Women in Pakistan

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ABSTRACT

The use of technologies for communication and information has made lives more interconnected today. Pakistan is progressing in the domain of technological innovations as well. The security of borders and space becomes an ongoing concern for Pakistani authorities, especially after 9/11. The goal of a comprehensive national security policy is lacking because Pakistan is ignoring the existential threat posed by cyberterrorism. Terrorists are gaining ground and jeopardizing numerous aspects of Pakistan's national security because of its poor cyber security. They are primarily looking out women to help in dissemination their ideologies. The study explores how terrorists, in particular, are radicalizing women through digital channels. Its primary emphasis is on how ISIS, BLA, and TTP operate online. The theory of social learning is applied. The study relies on a qualitative approach. Interviews are also conducted for data collection. Secondary sources, such as documents, newspapers, books, articles, and case studies are also analyzed. The study emphasizes on the women empowerment, awareness and education as well as the economic indepence of women.

| **Keywords:** | Cyber Security, Cyber Terrorism, Online Radicalization, Pakistan, Women |

Introduction

The beginning of the twenty-first century heralded a period of significant worldwide change, especially in the security domain. The 9/11 served as a catalyst for a reassessment of conventional security paradigms. The entire world observed a paradigm shift in the aftermath of this unprecedented act of violence as nations wrestled to deal with the complexity of emerging security threats. Cyber terrorism is one of these new challenges that have become a powerful force, using the swiftness at how technology is developing to overcome barriers to geography and traditional military strategies. Security is now understood to extend beyond the traditional military and geopolitical spheres in the wake of 9/11. The definition of security changed over time to include social, technological, and economic aspects as global interdependence became more obvious. The digital world, which was previously unimportant, has become an essential discipline where security issues and the quick development of technology meet.

A turning point that had an impact on the entire world was the terrorist attacks on the Pentagon and the World Trade Center on September 11, 2001. The unforeseen impact of the attacks shattered norms of security, forcing nations to reconsider their strategies for combating both traditional and emerging threats. The domain of counter-terrorism efforts has expanded beyond geographical boundaries, marking an era where entities lacking official state affiliations, armed with sophisticated technologies, can present formidable challenges to both national and global security. This research undertakes a thorough exploration of the intricate dynamics surrounding cyber terrorism and cyber security in the aftermath of the 9/11 events, specifically centering on the experiences of women in

Pakistan. The incorporation of a gender perspective becomes crucial for gaining insight into the nuanced ways different segments of society navigate and contribute to the continually evolving cyber threat landscape. In an era where technology pervades every aspect of our daily lives, the vulnerabilities and opportunities within the cyberspace exhibit variations based on gender. Thus, an overall understanding of the topic requires an understanding of the gendered aspects of cyber threats and defenses. Challenges and countermeasures become important in acquiring a thorough grasp of the subject.

In discussions regarding cyber terrorism and security, the interaction of gender and technology is an important but sometimes ignored in studies. In many nations, including Pakistan, the digital gap and prevalent gender norms create unique cyberspace experiences for men and women. In order to create inclusive and successful cyber security policies, it is imperative to comprehend these dynamics. In Pakistan, women are using technology more and more to participate in different aspects of life and to gain empowerment. Opportunities for civic involvement, work, and education are presented by the digital realm. This advancement is not without difficulties, though, since women face particular obstacles while traversing the digital sphere due to the intersection of cyber threats and cultural norms.

Literature Review

Social internet gives young ladies a platform to openly process their transition on an individual, societal, and political level; establish connections with other women who are going through the same thing at the same time; and find and mentor new, younger women. (Windsor, 2018) Studies such as Sageman have shown that the Internet has become more and more attractive to female extremists as a means of avoiding the gender-based divide that exists in actual Islamist activism. For women who are seeking religious information without having a thorough understanding of Islam beforehand, this makes the internet a particularly relevant place for radicalization, making them susceptible. While some contend that the people who already hold radical beliefs are the ones who are most at risk of becoming radicalized online, others contend that people with a neutral mindset and little prior knowledge are the ones who are most vulnerable to extremist ideals. Online risks may be worse for young Muslim women in Britain who have little offline access to Islamic information. Such a notion has given rise to analogies between radicalization on the internet and "grooming." (Yaseen, & Muzaffar, 2018; Sageman, 2011) Using the Internet as a substitute platform, a less restricted gender identity, first interacting with Islam and then moving toward a more radical and ultimately violent posture, defying Al Qaeda's views on women's duties. (Pearson, 2015)

It is not new that women are using the internet to spread information favoring jihad. Throughout the previous ten years, female activists actively participated in recruiting and spreading the Al Qaeda message among women. One such activist is Malika el-Aroud, a Belgian national of Moroccan descent**. (**Fraihi, 2012) Women are urged by Tehrek e Taliban Pakistan (TTP) to oppose the patriarchal society and take part in Jihad in order to achieve Jannah. They provide them physical training as well as arm them with weapons. For their security, they are handed grenades and firearms. TTP has modified their approach. In the past, they have only recruited women to assist them in carrying out "martyrdom operations." However, they are now actively participating and targeting specific sites. In an effort to attract women's attention, TTP also launched their magazine, "Sunnat e Khaula," in August 2017**. (**Haider & Warraich, 2023) Like ISIS, they favor educated women. Women from Pakistan's cities are the TTP's primary recruiting target right now. To propagate their philosophy, they are concentrating on enlisting the help of working women in fields like engineering, medicine, and education. The employed women are connected to numerous households. Thus, TTP employed them as a tool to infiltrate and spread its ideology to as many individuals as possible. Mullah Fazalullah's wife advises ladies to have more children and spread the TTP's ideology to their progeny in order to increase the group's membership. (Hussain, 2010) Women see war as a means of escaping the expected life that is planned for

them, according to Clara Beyler, who discusses female suicide bombers differently than male suicide bombers. When women turn into human bombs, they do so to make a message about their gender as well as about a nation, a religion, or a leader. (Schweitzer, 2006)

Material and Methods

The study takes a qualitative research technique to thoroughly analyze the multiple dimensions of cyber terrorism and cyber security after 9/11, with a particular emphasis on women's experiences in Pakistan. The qualitative method is chosen for its capacity to dive into the complexities of human experiences, attitudes, and actions, resulting in a more nuanced knowledge of the issue. In-depth interviews are done with important stakeholders, including Pakistani women who have encountered or researched cyber risks, cyber security specialists, and persons with knowledge of terrorist operations in the digital world. These interviews offer personal viewpoints, narratives, and expert opinions to bolster the qualitative study.

Books, articles, newspapers, online publications, historical records, and current case studies are used to conduct a thorough assessment of the body of literature. With a descriptive approach, the research seeks to offer a thorough and in-depth description of the nature of cyberterrorism and cybersecurity in the wake of the 9/11 attacks. The behavioral facets of cyberterrorism and cybersecurity are understood through the use of social learning theory." Within the framework of this study, the theory investigates how Pakistani women learn about and adjust to the difficulties presented by cyberthreats, as well as how they contribute to improving cyberdefenses. Themes are chosen on the basis of periodic trends, patterns, and pertinent findings. Participants' privacy and identities are protected through the use of anonymity (Pseudonyms) & confidentiality.

Results and Discussion

Cyber Security and National Security of Pakistan after 9/11

Global security entered a new phase after the 9/11 attacks, prompting nations worldwide to reconsider and strengthen their security measures against new threats. Pakistan, with its distinctive challenges and strategic location at the junction of geopolitical conflicts, has had to adapt to the changing national security scenario. In addition, it faced unique challenges along with domestic issues, border security, and counterterrorism as it became a key player in the War on Terror. The 9/11 attacks shattered the foundations of international security and brought on a paradigm change in the way that how states perceived and dealt with threats. The surfacing of non-state actors, international terrorism, and the expansion of interrelationships among the nations required new techniques to maintain national interests.

Over time, military aspects have dominated national security, with an exclusive focus on border protection and combating military threats from others. This viewpoint was well-represented during the Cold War, when states made military relationships and alliances and was engaged in weapons race for their safety. The paradigm shift of the Copenhagen school in the 1990s expanded the traditional perspective by emphasizing that confrontations had several causes in addition to military threats. (Mcsweeney, 1996) This development is especially noticeable in Pakistan today, where national security now includes cyber security as a fundamental element. Statistics provided by the Pakistan Telecommunication Authority (PTA) show that the emergence of digital technology has fundamentally changed how security is seen and handled.

The internet penetration rate in Pakistan has exceeded 31%, as per statistics provided by the Pakistan Telecommunication Authority (PTA), demonstrating an extensive adoption of digital technology into the national fabric. The data shows that social media

platforms—especially Facebook—are being used in Pakistan in a significant trend. Facebook has grown to become a major digital platform for communication, information exchange, and social engagement, with 15.4 million users, or 8.5% of the world's total population. According to the demographic distribution, those between the ages of 18 and 24 are especially fond of it, which emphasizes the role that digital media serves in forming young people's viewpoints. Although this increased connectedness has created new opportunities for trade, communication, and information sharing, it has also brought forth new threats in the form of cyber terrorism. (Haider & Warraich, 2023)

Pakistan established robust legal and policy frameworks after realizing how urgent it was to secure its digital infrastructure. The Pakistan Electronic Crimes Act (PECA) of 2016 was an important milestone in addressing cybercrimes, giving law enforcement agencies with the necessary tools for dealing with cyber threats. The National Response Centre for Cyber Crime (NR3C) of the Federal Investigation Agency (FIA) was established with the objective of augmenting the nation's capacity for investigation and actions. Additionally, joint efforts between government and military organizations aimed to present a united front against cyber threats. (Khan et al., 2019)

Pakistan Facing Challenges in the Domain of Cyber Security

The inclusion of cyber technology into Pakistani society has resulted in a slew of constructive and destructive changes. People are experiencing unprecedented levels of connectedness due to the widespread use of platforms such as Facebook, WhatsApp, and YouTube. However, a lack of effective control measures along with the dissemination of sectarian knowledge poses concerns about the social repercussions of cyber technology. This paper analyzes the dynamics of Pakistan's digital transition, demonstrating how cyber technology leads people to vulnerabilities—particularly with regard to online radicalization—while also enabling connectivity. Understanding and addressing these issues is critical because the use of religious narratives by cyberterrorists to manipulate people—especially women—makes the situation much more complex.

Popular online platforms like Facebook, WhatsApp, and YouTube are widely available and used in Pakistan; they are important channels for communication, information sharing, and entertainment, but the lack of effective control mechanisms raises concerns about the potential misuse of these platforms. Although people can use these technologies, they are unable to exercise control over the content that is disseminated, which creates a vulnerable environment that is susceptible to malicious activities, including the spread of sectarian knowledge. One important effect of unrestricted digital connectivity is the dissemination of sectarian knowledge through digital channels due to the anonymity and reach of online platforms

People in Pakistan are using cyber technology more and more, which has resulted in a noticeable change in their way of life. The rise in virtual platforms for communication, entertainment, and information retrieval has led to a decrease in outdoor activities. Connectivity has been made easier by technology, but it has also made people more sedentary. This change has major ramifications, especially for women, who are becoming more prone to potential threats from larger cyber exposure in along with spending more time online.

Cyber terrorists that use different internet platforms to spread their propaganda might especially affect young people who are looking for social contacts and leisure activities. People, especially women, are vulnerable to radical beliefs spread via social media because of the attraction of interacting with like-minded people or supporting causes that appear to empower them.

The manipulation of people—particularly young people—by the use of religion as a tactic is one worrying aspect of cyberterrorism in Pakistan. Twitter, Facebook, and YouTube are just a few of the social media sites that terrorist groups use to spread their ideologies. These platforms eventually end up serving as media outlets for radical narratives that masquerade as religious empowerment.

Terrorists' social media accounts frequently post pro-gender equality and women's empowerment sentiments. But this progressive appearance is a front for manipulating people, especially women, into endorsing extreme agendas.

Pakistani Women as Target by Cyber Terrorists

Since 2015, there has been a noticeable rise in the trend of women joining international terrorist groups, which poses a challenging situation for Pakistani security services. This paper investigates the rise in female participation in jihadist operations, concentrating on organizations such as Tehreek-e-Taliban Pakistan (TTP), Baloch Liberation Army (BLA), and the Islamic State of Iraq and Syria (ISIS). A thorough analysis is conducted of how female roles have changed inside these groups, what titles they take on, and how their participation affects security. There has been a noticeable increase in the number of female members of international jihadist organizations active in Pakistan since 2015. Groups like TTP, BLA, and ISIS, which have historically been controlled by men, have seen a rise in the number of female members. This change calls into question previously held assumptions regarding the gendered character of terrorism and calls for a thorough examination of the variables influencing this pattern. Beyond only participation, there has been a discernible increase in the active roles that women are playing in terrorist strikes. Women are now more actively involved in carrying out terrorist activities than their male counterparts. This change deviates from the stereotypical roles that women have historically played in extremist groups, necessitating a more complex analysis of the changing dynamics of female terrorism (Karamat, Muzaffar, & Shah, 2019).

Ibtal Ummat (national hero), Fedayeen (those who devote themselves in Allah's service), and Ghazian (victors) are among the symbolic titles that female members of jihadist groups have taken up. (Haider et al., 2023)These titles honor their martyrdoms and serve as a token of their dedication. The adoption of these names highlights the radical groups' brainwashing of female members on their ideologies. The extent and severity of female participation in jihadist activities are demonstrated by a number of well-known incidents. A group of female members of the "Al-Zikra Academy" were detained in 2015 on suspicion of recruiting for ISIS. The trip to Syria that Bushra Cheema took her children on for Jihad, as well as the 2017 story of a young medical student who was indoctrinated by ISIS terrorists, demonstrate the variety of circumstances that lead to women engaging in extremist behavior. (Basit, 2018)

The recruiting and training of women for terrorist purposes has became more systematic. The rebel Balochistan Liberation Army is actively seeking female assailants. Remarkably, Yasmeen, Aslam's wife, has taken up the task of teaching women to become terrorists after her husband, Aslam alias Uccho, was assassinated. (Rashid, 2022) This methodical approach suggests that there is a conscious effort to increase the participation of women in radical activities.

Furthermore, women like the wife of Kamran Gujjar and her sister-in-law, who both have been involved in recruiting and dissemination attempts,were part of the ISIS recruitment network in Pakistan. An additional indication of the network's scope and the active participation of women in spreading extremist material is the 2015 arrest of a group of pro-ISIS female militants in Karachi. The story of Ms. Irshad Bibi, a teenage girl who travelled to Syria and joined ISIS in April 2015, is particularly noteworthy. She represents the vulnerability of young women to extremist ideologies, and her case highlights the need

for effective counter-terrorism strategies and addressing the underlying causes of radicalization. (Gul, 2018) A major security concern is the rise in female suicide bombers, who can pass through security checkpoints while hiding explosive devices under traditional clothing, like burqas. This presents special challenges for security forces, as well as the fact that the Pakistani police and army do not recruit enough women, which emphasizes the need for an even more gender-inclusive approach to security.

The changing dynamics of gender within these groups, the use of symbolic titles, formalized recruitment and training programs, and the rise of female suicide bombers all serve to emphasize how the roles that women play in terrorism are changing. In order to reduce the possible threats posed by women becoming more involved in jihadist activities, immediate and deliberate initiatives are required due to the security implications of this trend.

Findings

An extensive set of interviews was undertaken in an effort to comprehend the complex dynamics of cyber terrorism and cyber security in Pakistan following 9/11, especially as they relate to women. The objective was to bring together a variety of viewpoints from professionals, decision-makers, and those who are actively engaged in Pakistani cyber security. Mariam Ahmed, The Social Media Influencer, holds that women have a significant impact on digital media. Unfortunately, extremists exploit their influence. She believes cyber awareness and education are necessary to empower women against such misuse. Sana Shah (pseudonym) is a victim of cyber terrorism. She reveals that her husband was killed by someone. She was interacted with a lady through facebook. She was radicalized by that lady. However, luckily her family intervened and Sana remains saved. Another interview is conducted of Fatima Hassan, who is a lawyer. She holds women lack digital literacy. Knowledge is essential. Women must be educated about the potential threats of the internet and how to be safe. The judicial system also has to change in order to properly combat cybercrimes.. So, the findings of research are as follows:

Terrorist organizations are utilizing the social media in five ways:

- Spreading propaganda through posts, photographs, videos, and magazines,
- Recruiting individuals,
- Providing training for terrorist activities
- Raising funds for their organization
- Carrying out cyber-attacks

By applying Social Learning Theory researcher get to know that women in Pakistan are reinforcing by the online strategies of terrorist organizations, particularly through Facebook and Twitter. The exposure to extremist content on social media platforms are contribute to the formation of extremist beliefs and behaviors among vulnerable women in Pakistan Pakistani authorities are still relying on traditional conflict resolution strategies. Banning the sites of terrorist organizations is not a viable solution. To deter the threat, Pakistan needs an effective cyber army. Addressing these challenges requires a nuanced and adaptive approach that considers the unique vulnerabilities of women and acknowledges the dynamic nature of cyber threats in the contemporary security landscape.

Conclusion

Strong familial relationships play a vital role in the upbringing and reinforcement of the strong links that bind Pakistani society. Women are particularly important in this regard. When it becomes clear that extremists use women as a powerful weapon and a means for spreading their ideas, it raises important questions, like why the government can't take

advantage of women's potential for empowerment in the social, political, and economic domains if opponents can. Given how much women contribute to the maintenance of family unity, it is possible that women's empowerment will operate as a powerful barrier against the spread of radical beliefs.

Governmental organizations, public society, and foreign allies must work together to address the complex issues raised by extremism. Educational initiatives, reforms to the laws, economic opportunities and social engagement should all be part of initiatives aimed at empowering women.

It is possible to change the perception of extremism in Pakistan by acknowledging the potential of women as agents for constructive change. The government can effectively combat extremist ideology by strengthening women on a social, political, and economic level. This strategy helps Pakistan achieve its larger objectives of growth, stability, and prosperity while also strengthening the social fabric of the country. Pakistan has the opportunity to develop a robust and inclusive society that is united in its opposition to extremist beliefs by empowering women.

Recommendations

Following are some suggestions for the concerned authorities:-

- New approaches and techniques are necessary to combat the threat posed by terrorist outfits.
- The strategies of Indonesia and Malaysia can be adopted.
- Security agencies must shift their male centric approach.
- They should promote women's empowerment and economic independence
- At the societal level, Pakistan needs to develop an effective mechanism to launch awareness campaigns.
- Initiatives should be taken by authorities to address social exclusion of females in a society

References

Basit, A. (2018). Threat of Urban Jihadism in South Asia. *Counter Terrorist Trends and Analyses*, *10*(3), 1–5

Fraihi, T. (2012). (De-)Escalating Radicalisation: The Debate within Immigrant Communities in Europe. In *Jihadi Terrorism and the Radicalisation Challenge*. Routledge.

Gul, I. (2018). Women's Role in Recruitment for ISIS/Islamist Networks in Pakistan. *International Annals of Criminology*, *56*(1-2), 79–92

Haider, A., & Warraich, S. K. (2023). The Surge of Women Radicalization after 9/11: Unraveling Dynamics in Pakistan. *Journal of Development and Social Sciences*, *4*(1), 654–663

Haider, A., Warraich, S. K., & Mukhtar, D. A. (2023). Use Of Facebook And Twitter By Terrorist Organizations To Radicalize The Youth: A Case Study Of Ttp, Bla And Isis In Pakistan. *Bulletin of Business and Economics (BBE)*, *12*(2), 171–177

Hussain, Z. (2010). *The Scorpion's Tail: The Relentless Rise of Islamic Militants in Pakistan-And How It Threatens America*. Simon and Schuster

Karamat, S., Muzaffar, M., & Shah, A. S. (2019). Politics of Religious Extremism in Pakistan: An Analysis, *Review of Economics and Development Studies, 5* (2), 315-322

Khan, S., Tehrani, P. M., & Iftikhar, M. (2019). Impact of PECA-2016 Provisions on Freedom of Speech: A Case of Pakistan. *Journal of Management Info*, *6*(2), 7–11

Mcsweeney, B. (1996). Identity and security: Buzan and the Copenhagen school. *Review of International Studies*, *22*(1), 81–93

Pearson, E. (2015). The case of Roshonara Choudhry: Implications for theory on online radicalization, ISIS women, and the gendered jihad. *Policy & Internet*, *8*(1), 5–33. https://doi.org/10.1002/poi3.101

Rashid, D. A. (2022). Pakistan at The Crossroad: Hybrid Warfare And The Parallels Between Bangla And Baloch Movements. *NDU Journal*, *36*, 50–62.

Sageman, M. (2011). Understanding Terror Networks. University of Pennsylvania Press.

Schweitzer, Y. (2006). *Female Suicide Bombers: Dying for Equality?* Jaffee Center for Strategic Studies.

Windsor, L. (2018). The Language of Radicalization: Female Internet Recruitment to Participation in ISIS Activities. *Terrorism and Political Violence*, *32*(3), 506–538

Yaseen, Z., & Muzaffar, M. (2018). Extremism in Pakistan: Issues and Challenges, *Journal of Politics and International Studies, 4* (I), 31-42