

CAPITAL UNIVERSITY OF SCIENCE AND
TECHNOLOGY, ISLAMABAD



**Association between Social competence,
Peer victimization and Anxiety in
adolescents with Autism Spectrum
Disorder**

by

Maryam Nawaz

A thesis submitted in partial fulfillment for the
degree of Master of Science

in the

Faculty of Management & Social Sciences

Department of Psychology

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Anxiety in adolescents with Autism Spectrum Disorder**

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Abstract

Adolescents with Autism Spectrum Disorder are at greater risk to be victimized by their peers due to reduced social competence, which may heighten their anxiety. The current study intends to investigate the association between social competence, peer victimization, and anxiety in adolescents with ASD, with a focus on the role of peer victimization as a mediator. Adolescents diagnosed with ASD between the ages of 10 and 16 years were recruited from special education institutions in Islamabad and Rawalpindi. Using purposive sampling technique, cross-sectional research design was used. Parent-report versions of Schwartz peer victimization scale, social competence scale and Anxiety scale for Children with ASD (ASC-ASD) were administered to measure peer victimization, social competence and anxiety. Findings showed that social competence was negatively associated with peer victimization whereas peer victimization was positively associated with anxiety. Moreover, peer victimization mediated the relationship between social competence and anxiety. The study findings will inform the development of socially and emotionally supportive educational environments for neurodiverse students. This will further contribute to promote inclusivity, improve social competence, alleviate anxiety, and enhance the overall psycho-social well-being of adolescents with ASD.

Keywords: *Social Competence, Peer Victimization, Anxiety, Adolescents, Autism Spectrum Disorder*

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Chapter 1

Introduction

1.1 Background of the Study

Adolescence is a critical period of development during which physical, psychological, and social transformations occur ([Backes et al., 2019](#)) Social interactions and peer relationships play a significant role in determining mental and emotional well-being ([Lerner et al., 2017](#)). This phase extends from puberty to adulthood and it encompasses behavioral changes including autonomy and a desire to form relationships with peers ([Engel and Gunnar, 2020](#)). Peer relationships and interactions have been observed as a crucial aspect of adolescence and can have both beneficial and detrimental impacts on adolescents' mental health and wellness. ([Brown, 2004](#)).

Adolescents with Autism spectrum disorder (ASD) struggle with language, social interactions and which affects their social competence and makes it challenging for them to build and maintain meaningful relationships with their peers. Consequently, they are more likely to have negative peer experiences such as peer victimization.

Peer victimisation has been linked to feelings of hopelessness, anxiety, social disengagement, loneliness, and an elevated risk of suicidal thoughts in adolescents with ASD ([van Schalkwyk et al., 2018](#)).

Social competence deficiencies raise the risk of peer victimization, which contributes to anxiety symptoms and has a detrimental effect on general functioning and wellbeing of adolescents with ASD ([Herting and Sowell, 2017](#)).

1.1.1 Autism Spectrum Disorder

Adolescents, with Autism Spectrum Disorder (ASD) face distinct behavioral, cognitive, and developmental challenges that differ from those of typically developing individuals, in terms of social and emotional development. ASD is a neurodevelopmental disorder that is characterized by enduring difficulties in social skills, interaction and communication, issues with nonverbal interpersonal capabilities, social and emotional reciprocity in a variety of settings along with repetitive patterns of restricted behaviors and interests (DSM-5-TR, 2022). Autistic adolescents have trouble using appropriate language and meaningful communication to establish and sustain relationships with others. ASD is also characterized by repetitive vocabulary, echolalia; the repetition of words or sounds, rigidity, poor eye contact, limited use and comprehension of gestures or body language, abnormal facial expressions, difficulty taking perspective, and a particular communication style ([National Institute on Deafness and Other Communication Disorders, 2020](#)).

The capacity to communicate with peers is impacted by these noticeable problems and deficiencies in social interaction and communication, which frequently result in confusion, misinterpretations, social isolation, rejection, withdrawal, and difficulties navigating social situations in an acceptable manner ([National Institutes of Health, 2020](#))

According to the Theory of Mind model, adolescents with ASD struggle to identify and manage mental states like desires, feelings, emotions, intentions, beliefs, attribution, and comprehension of perspectives a condition known as mind blindness ([Lombardo and Baron-Cohen, 2011](#)). The ability to comprehend the thoughts, feelings, and behaviours of others is negatively impacted by these deficiencies. Adolescents with ASD thus struggle to read and comprehend social cues and surroundings, which leads to inadequate responses in social settings. This results in social marginalisation, peer rejection, and disapproval, all of which cause problems with social and emotional expression and growth ([Baron-Cohen, 1997](#)).

Negative social experiences have shown to be prevented by positive peer connections and peer social support. Adolescents with autism struggle in social situations, which makes it harder for them to effectively integrate into society (Kojovic et al., 2019). As a result, they are frequently avoided by their classmates. Furthermore, adolescents with ASD find it much more challenging to adapt and cope due to their incapacity to comprehend and interpret the viewpoints of others as well as their noncompliance with social norms and expectations. Because of this, they are stigmatized, discriminated against, and viewed as different (Van Noorden et al., 2015)

The prevalence of ASD has increased threefold over the previous thirty years, according to research reports (Nadeem et al., 2020). According to another study, the prevalence of ASD is 0.6% globally, however it is 0.4% in Asia (Salari et al., 2022). Due to under-reporting of the illness and negligence in seeking mental health care because to societal stigma and ignorance, there is lack of information on the epidemiology of ASD in Pakistan. However, the Pakistan Autism Society estimated in 2020 that there are about 350,000 children diagnosed with autism spectrum disorder (Khalid et al., 2020).

1.1.2 Social Competence in ASD

The inherent difficulties with language and communication in adolescents with ASD impact their social competence which limits their abilities to create and sustain meaningful relationships with peers. Social competence is the capacity of an individual to establish social connections with adults and peers (DeLay et al., 2016). A child's social interactions are a behavioral manifestation of their emotional intelligence and self-control. It is the collection of child's awareness of how their actions impact their surroundings and their sensitivity to the needs of others, and the behaviors, social skills, and emotional intelligence that children need to interact with their peers (Napolitano et al., 2021). Consequently, social competence reduces the chance of behavioral and emotional problems and is essential to healthy functioning in the future. It can take many forms, including friendship, peer popularity, positive self-concept, and social assertion (Soto-Icaza et al., 2015).

Variations in social competence during adolescence are associated with favorable outcomes in various areas of life, both now and in the future. Adolescents who find it simpler to form meaningful relationships with others are more likely to benefit as adults, including longer lifespans, more resilience to mental health issues, and higher social functioning (Argyle, 2014). Adolescents who are socially proficient are more likely to say they are happy or do well in school. Adolescents that are socially competent may have the cognitive and interpersonal skills necessary to successfully negotiate peer interactions, embrace constructive conflict resolution, and develop profound relationships (Tolan et al., 2016).

When compared to other indicators like mental health issues, self- and other-related thoughts, and academic achievement, low social competence has the greatest impact on becoming a victim of bullying. Adolescents with poor social skills, especially those who exhibit deficiencies in social information processing, are more likely to resort to violence as an unusual means of resolving conflicts, which increases the likelihood that their peers may victimize them (Ladd et al., 2014). This ultimately raises the chances of heightened psychological distress and internalizing issues specifically depression and anxiety.

According to research, social competency is linked to both academic accomplishment and social achievement, which includes positive peer relationships (Perren and Alsaker, 2009). Adolescents that are more socially competent and capable have been found to be more popular in their social circle and surroundings, have better social communication and conflict resolution abilities, are more accepted, and experience less rejection from their peers (Green and Rechis, 2006). Furthermore, adolescents having positive social competence have a strong ground that forms the basis for the development of significant and successful interpersonal relationships, which in turn decrease the chances of peer-related challenges and the overarching emotional or behavioral issues (Bornstein et al., 2010).

1.1.3 Peer Victimization in ASD

Adolescence is an important stage for developing social competence and reduced social competence has been shown to be detrimental since it increases the likelihood of peer victimization (Brendgen, 2018). Bullying, violence, social anxiety,

and peer rejection are among the numerous problems that are identified when social competence appears abnormal (Ladd et al., 2014). Adolescents have a strong desire for inclusion into the group of their peers and they rely more on their peers and friends for social support (Siegel et al., 2009). This phase is marked by being exposed to multiple life stresses (Wilkinson and Marmot, 2003). One of the stressors is found to be peer victimization (PV). Peer victimization is linked with increased stress, maladaptive behaviors, and other mental health issues (Siegel et al., 2009).

Peer victimization (PV) is defined as recurrent experiences of aggressive and harmful behaviors from peers targeted at the victim (Casper and Card, 2017). PV can be overt (physical aggression), relational (being excluded or ridiculed), or reputational (being the target of rumors or lies). Overt PV includes verbal or physical hostility such as pushing, verbal threats, teasing, and name-calling (Turner et al., 2011). PV in the classroom has been shown to have negative effect on test scores, grades, and learning environments (Jenkins and Demaray, 2015).

As defined by Olweus (2014), peer victimization is a sub-type of aggressive behavior in which the victim is intentionally attacked, harmed or bullied that is repeated overtime. The goal of perpetrating victimization could be of gaining dominance or control over the victims. Victimization requires intended negative action perpetrated against somebody and there is structural imbalance of power between the victim and bully. The power imbalance does not refer to physical different instead it could be manifested in different forms such as hitting, biting, name calling, gossiping, spreading rumors, rejecting, socially excluding and even includes cyberbullying (Olweus, 2014). According to the research studies, peer victimization mostly takes place within the school environment at different locations such as in classrooms, playground and school bus. Peer victimization within the school setting is linked with negative social, emotional and behavioral consequences (Cooley et al., 2018).

Numerous associated factors that indicate adolescents with ASD being more susceptible to peer victimization are explained by studies. Deficits in social communication and confined or repetitive behaviors are therefore significant problems.

Adolescents with ASD stand out due to these behavioral patterns or deficits, which raises their risk of peer victimization (Sreckovic et al., 2014).

Peer victimization increases sensitivity to internalizing challenges by reinforcing negative self-evaluations, unfavorable social judgments of peers, fear or avoidance of social interactions, or negative perceptions of the school environment (Cosgrove et al., 2017). Adolescents who show symptoms of anxiety or depression may be more susceptible to being victimized by their peers (Rudolph, 2014).

1.1.4 Anxiety in ASD

Anxiety is very common during adolescence and it affects social, emotional, and academic growth (de Lijster et al., 2018). Anxiety can be characterized as how an individual responds to anticipated or actual threats that might disrupt their homeostasis. The reaction may be behavioral, psychological, or physiological (Garcia and O'Neil, 2021). Adolescents with anxiety undergo social and educational difficulties, less engagement in school, impacted academic success and overall achievement (Nail et al., 2015). Anxiety in adolescence is associated with decreased acceptance, peer victimization, and poor quality of friendship (Ranta et al., 2016). Individuals develop and explore the sense of self at the time of adolescence. During this phase un-diagnosed or un-healed anxiety can hinder normal psychological functioning causing a burden on quality of life and over-all wellbeing (McCarthy, 2019).

Peer victimisation affects 46 to 94% of adolescents with ASD, which is significantly higher than that of neurotypical adolescents and adolescents with other disorders, according to research's findings (Sterzing et al., 2012). Research indicates that students with autism are more likely to be victimized by their peers than their typically developing peers or the ones who have other challenges like learning disabilities or behavioral or mental health issues. The prevalence of victimization among autistic children and adolescents is estimated to be between 44 and 67% (Park et al., 2020). According to Holden et al. (2020), autistic people already struggle with building and maintaining positive peer relationships, and social isolation, rejection, and peer victimization can be extremely damaging. Internalized

psychological problems and adolescent or adult psychopathology have been linked to peer victimization (Ferrigno et al., 2022).

Individuals with ASD face problems with interpersonal interaction, cognitive abilities, underlying social challenges, confined interests and repetitive behaviors make them a potential target for PV (Storch et al., 2012). Limited social support further increases the vulnerability (Locke et al., 2010). Furthermore, anxiety, behavioral challenges, reactivity stimuli in ASD increases probability of PV (Erath et al., 2012). Although mainstreaming adolescents with autism may have positive aspects, it also makes them more susceptible to social exclusion, peer rejection, and victimisation (Vijayakumar et al., 2018).

According to Erikson's psychosocial development theory, adolescents build a sense of self throughout the identity vs. role confusion stage (Erikson, 1959). Adolescents with ASD experience difficulties with social communication and interactions, which interferes with their capacity to build a positive self-image, develop social competence, causing role confusion (Brendgen, 2018). They struggle with social identity, social skills and a sense of belonging, and these differences can lead to social exclusion and peer victimization (Cooper et al., 2017).

According to research, girls with ASD have different social behaviors and challenges than boys (Dean et al., 2017). Girls exhibit different phenotypical expression including less repetitive behaviors and rigidity. Moreover, they have more socially typical focused interests, more inclination towards having close friends and not being much withdrawn (Happé, 2019). Girls are more likely to experience relational victimization such as ignorance, gossiping and rumors while boys are more prone to experience physical or overt forms of victimization such as kicking and hitting (Sproston et al., 2017). Girls with ASD are quietly ignored by their peers while boys are more publicly rejected (Sedgewick et al., 2019).

Adolescents tend to be in harmony with their friends for social support, which helps in their sense of self (Siegel et al., 2009). Socially competent adolescents may possess the cognitive and interpersonal abilities required to successfully navigate peer interactions, embrace constructive dispute resolution, and form meaningful connections (Tolan et al., 2016). Social competency is therefore crucial for future

healthy functioning and lowers the likelihood of behavioral and emotional issues. According to Soto-Lcaza (2015), it can manifest in a variety of ways, such as healthy relationships, peer acceptance, a positive self-image, and social assertiveness. As the social interactions increase, their social relationships become more refined (Lerner et al., 2017). Those who experience peer victimization have elevated stress reactions, maladaptive functioning and psychological issues (Siegel et al., 2009).

The social information processing framework states that social interactions, relationships, social skills and competence shape children's and adolescents' self-perceptions (Dodge, 2014). Adolescents with autism spectrum disorder (ASD) have difficulty producing and comprehending verbal and nonverbal cues. Autistic adolescents are especially vulnerable to peer victimization because of their inability to understand social cues, establish, maintain, and control positive peer connections and interactions. Internalizing problems including feelings of depression and anxiety, social rejection, a lack of social situational awareness, changed self-perception, low self-esteem, and trouble communicating with others can stem from peer victimization due to reduced social competence (Morrow et al., 2019). Insufficient social skills result in fewer positive interactions and more negative ones (such bullying or rejection), which raises anxiety and creates a vicious cycle where less competence causes greater suffering, making skill development more challenging (Motoca et al., 2012). Hence, reduced social competence makes it harder for individuals to deal with social situations, making them more susceptible to unpleasant experiences like peer victimization, which elevates anxiety symptoms (Boulton et al., 2010).

Adolescents and children experience social, emotional, and biological changes during the early school years. Given that this stage is marked by a greater degree of independence, the development of relationships, particularly with peers, and the formation of an identity, all of these factors contribute significantly to the psychosocial effects that last a lifetime. Victimization throughout this developmental stage poses a significant risk to the welfare in all of the experiences. Peer victimization is linked to psychological problems like anxiety, depression, panic disorder, and even suicidal thoughts, according to research (Evans-Lacko et al., 2017).

The negative outcomes emphasize the way adverse social experiences during childhood might impair psycho-social functioning and well-being. Conversely, positive social experiences including constructive peer relationships, social support, and chances to practice positive social skills aid in building resilience, which in turn aids in reducing emotional distress (Armitage, 2021). Positive childhood experiences are thought to be crucial for the development of suitable social skills and the ability to lead a healthy lifestyle in later life. The World Health Organization states that positive experiences, particularly in educational and school settings, are crucial for alleviating global health disparities (Langford et al., 2015).

According to social-ecological theory, an individual's environment—including their family, school, and peers—influences their development and psychosocial adjustment in addition to individual factors. Additionally, the diathesis model of stress describes how environmental stresses and individual vulnerabilities such as psychosocial impairments increase the susceptibility to peer victimization and the ensuing emotional and behavioral issues (Swearer and Hymel, 2015). Given that adolescents with autism have deficiencies in social skills and competence, external stressors like peer victimization may increase vulnerability and cause problems with adaptive functioning, anxiety, hopelessness, and general wellbeing.

1.2 Gap Analysis

Adolescents with autism spectrum disorder struggle with social competence, particularly with peer engagement, social communication, emotional reciprocity, and recognizing and adhering to social norms and cues. These deficiencies or challenges are core to autism which make it difficult for the adolescents with ASD to navigate through social expectations and situations (Amin, 2023). Consequently, these deficits and reduced social competence increase the vulnerability of unfavorable peer experiences like peer victimization, which can result in symptoms associated to anxiety, peer rejection, social isolation, exclusion and withdrawal and stigmatization (Brendgen, 2018). According to Morrow et al. (2019), an individual who lacks social skills and social competency is more predisposed to negative interactions and experiences like bullying, social isolation, or rejection. Negative consequences include emotional distress, which raises anxiety and further

decrease competence, making skill development more challenging (Motoca et al., 2012). Therefore, peer victimization functions as a mediator which explains how social competence is linked with anxiety in adolescents with ASD.

Previous research studies show that repeated experiences of peer victimization increase the socio-emotional distress which reduce the opportunities of positive learning, adaptation and psycho-social growth. Cultural, social, and educational challenges have a major impact when it comes to ASD. Adolescents with autism already struggle with social skills, and in a sociocultural setting where there is little to no awareness of autism, the condition is stigmatized and frequently misinterpreted. These people are misunderstood as being socially indifferent, which increases the likelihood of stigmatization, social rejection and peer victimization. Adolescents with autism may find it challenging to fit in and comply to social standards, which can result in victimization and marginalization (Daraz et al., 2025). Peer victimization therefore results in social problems such rejection and withdrawal as well as anxiety (Aftab et al., 2024). Additionally, there is insufficient readily accessible individualized assistance, little professional training, and inadequate application of inclusive approaches in academic settings, which reduces the probability of development of appropriate social competence. Peer victimization therefore results in social problems such rejection and withdrawal as well as anxiety (Aftab et al., 2024).

The literature worldwide has extensively documented the association between anxiety, self-competence, and peer victimization; however, the majority of these studies have been conducted in neurotypical populations which limits its applicability to autistic individuals (Amin, 2023). As previously stated, social competency issues are an integral component of autism and increase the likelihood of peer victimisation by having a substantial impact on the social experiences and peer relationships of teenagers with autism (Mazurek, 2014). These factors add to the difficulties in social communication, recognising and interpreting social cues and the surroundings, and effectively expressing and controlling emotions. These adolescents consequently deal with problems such social rejection, marginalization, peer exclusion, and misconceptions, which exacerbate anxiety and impede socio-emotional growth (Cooper et al., 2017). In addition, adolescents with ASD develop

maladaptive coping strategies to prevent additional stigmatization and rejection from their peers, which further reduces their chances of forming healthy peer relationships, gaining socioemotional skills, and being accepted by others (Cappadocia et al., 2012).

Due to under-reporting of the disorder, misunderstanding, and negligence in seeking mental health treatment because of societal stigma and misconceptions, there is a lack of knowledge regarding the epidemiology of ASD in Pakistan (Asghar et al., 2023). According to a survey done in Karachi, 75% of people had heard of autism, but only a small percentage knew the main symptoms and indicators (Anwar et al., 2018). Even healthcare professionals using DSM-IV-TR demonstrated misunderstandings regarding the core traits and characteristics of the disorder, according to another research done in Lahore (Imran et al., 2011).

According to these findings, there is a lack of knowledge and misconceptions about the features of ASD, which might make it more difficult to provide the psychosocial support and therapies that adolescents with autism need. In such circumstances, social competency issues go untreated, which may raise the likelihood of peer victimization and eventually cause anxiety and also it raises several challenges concerning how autistic adolescents view themselves and deal with various difficulties (Pickard et al., 2018).

Therefore, it is crucial to comprehend the relationship and dynamics that exist between peer victimization, social competence and anxiety among adolescents with ASD in order to raise awareness and create specialized support programs for the autistic population that already has psychosocial deficits and are not accepted and understood by people due to lack of awareness and comprehension. The lack of understanding limits the acceptance of this neurodiverse population which elevate their vulnerability further leading to social isolation and emotional distress. Furthermore, it emphasizes the significance of conducting a research study in the local context to generate and guide indigenous, empirical interventions that are relevant to the cultural and contextual understandings for improving the psychological and social wellbeing of adolescents with ASD.

1.3 Problem Statement

The psychological well-being of adolescents with ASD is significantly impacted by the social and emotional difficulties they experience (Brownlow et al., 2015). During adolescence, physical, psychological, and social changes take place, making it a crucial time for growth (Backes et al., 2019). Peer relationships and social interactions are important factors that influence mental and emotional health (Lerner et al., 2017). The adolescents with ASD struggle with social communication, building and sustaining healthy peer relationships, and comprehending social signs, resulting in social marginalization, peer rejection, and restricted access to positive social support (Brownlow et al., 2015). The social competence deficiencies make autistic adolescents prone to negative social experience since they are teased, rejected and bullied (Adams et al., 2017).

Autistic adolescents with reduced social competence are more likely to experience peer victimization, which has been linked to an increased risk of anxiety (Siegel et al., 2009). Adaptive social functioning requires social competence, which is the capacity to initiate and sustain productive peer interactions. Due to the challenges and deficits in these social skills, including issues with social communication, peer relationships, and social problem-solving autistic adolescents become more susceptible to negative peer experiences such as peer victimization which in turns heightens cause psychosocial distress and also it impairs adaptive social functioning (Olweus, 2014).

Social communication, nonverbal communication comprehension and use, and repetitive or limited behaviors are among the many areas in which people with autism spectrum disorder (ASD) struggle (DSM-5-TR, 2022). These difficulties are linked to problems with social competence, which is the ability to form and maintain healthy relationships and react correctly in social situations (Gresham et al., 2017). Receptive and expressive language difficulties are more common in adolescents with ASD. People may experience unfavorable social outcomes, such rejection or expulsion from peer groups, as a result of the challenges they face with social competency (Syriopoulou-Delli et al., 2016).

Social competency deficits not only enhance the likelihood of peer victimization, but they also intensify anxiety symptoms in the autistic individuals. The dynamic that exists between peer victimization, social competence and anxiety highlights the need for examining these variables together rather than independently. There is limited research that state how reduced social competence increase the vulnerability of negative peer interactions and hence increased anxiety specifically in Pakistani context. Particularly in the local context, social conformity, peer acceptance, and interpersonal harmony are highly valued; however, given the psychosocial context of adolescents with autism, their behaviors differ from those of typically developing adolescents, which frequently raises the possibility of misunderstandings or rejections (Amin, 2023).

The unique cultural and developmental contexts are overlooked. Negative perceptions and cultural stigma, particularly in relation to ASD, lead to social marginalization and loneliness since mental health concerns are scarcely addressed. Inclusive education has challenges, including a lack of resources, expertise, and skilled professionals (Aftab et al., 2024). Social norms and expectations might make it difficult for autistic adolescents to adapt and fit in, resulting in isolation and victimization (Daraz et al., 2025). The absence of context-specific database emphasizes a significant research gap making it challenging to establish effective interventions for victimized ASD adolescents.

This is limited or no awareness regarding the core features and characteristics of autism spectrum disorder while the prevalence seems to be increasing (Asghar et al., 2023). The lack of awareness causes issues with appropriate identification of the disorder, misinterpretation of the symptomology and inadequate social support available for them. The challenges that are core feature of autism such as difficulties with social communication, sensory sensitivities, restricted or repetitive patterns of behavior are often misunderstood or ignored (Amin, 2023).

Since the professionals, families and educators are not well-informed about the characteristics of autistic individuals, they are more likely to experience compounded difficulties in navigating social relationships and challenges. The positive growth and provision of appropriate support might be hindered by ignorance or

misconceptions about autism, which increases the probability that these adolescents will be victimized and suffer the ensuing psychological and social distress.

Therefore, the purpose of this study is to investigate and understand how and to what extent do deficits in social competence contribute to peer victimization which subsequently leads to anxiety in adolescents with ASD. The findings of the present study are expected to inform the development of culturally relevant and targeted support for this vulnerable population. The information was collected from the parents of the adolescents with autism since they are involved in their everyday lives and can provide important details about their children being a reliable source for improved comprehension. Special education schools were considered for collecting the data since they are structured to meet the unique needs and provide the most relevant and appropriate environment for this research.

1.4 Research Objectives

This research study has following objectives

- i. To examine the association between social competence and peer victimization among adolescents with ASD.
- ii. To examine the association between peer victimization and anxiety among adolescents with ASD.
- iii. To examine the association between social competence and anxiety among adolescents with ASD.
- iv. To examine the peer victimization as the mediator in the relationship between social competence and anxiety in adolescents with ASD.

1.5 Research Hypotheses

Following are the hypothesis of the study.

- i. Social competence will have a significant negative association with peer victimization among adolescents with ASD.

- ii. Peer victimization will have significant positive association with anxiety among adolescents with ASD.
- iii. Social competence will have a significant negative association with anxiety among adolescents with ASD.
- iv. Peer victimization will mediate the relationship between social competence and anxiety in adolescents with ASD, such that deficits in social competence is associated with higher levels of peer victimization, ultimately leading to increased anxiety in adolescents with ASD.

Chapter 2

Literature Review

This section reviews previous research and literature demonstrating that adolescents with autism spectrum disorder (ASD) are more vulnerable to peer victimization because of their diminished social skills. They are particularly susceptible due to their deficiencies in social skills and competency. They consequently undergo unpleasant social experiences, which exacerbate their anxiety.

Adolescence is a time when psycho-social adjustments must be made. Since it's a transitional stage, peer relationships and interactions, more independence, and autonomy are given priority (Egilson et al., 2017). In addition to effectively managing social interactions and relationships, adolescents adopt and take into consideration the social duties, obligations, and expectations that society has set. These neurodiverse adolescents lack social competence, one of the primary characteristics of autism, which is necessary for navigating psychosocial functioning in an acceptable way.

Reduced social competence, psycho-social challenges, and difficulties coping with social situations can lead to stress and unpleasant emotions, which in turn can result in elevated anxiety, according to a study (Mathews et al., 2016). According to research, 50% of adolescents with ASD experience poor social outcomes as a result of their deficiencies (Turcotte et al., 2015). This offers a basis for implying that social competence deficits make autistic adolescents prone to peer victimization which heightens anxiety (Stark et al., 2023).

Numerous psychological problems, including anxiety, sadness, loneliness, poor social skills, and low self-esteem, have been linked in studies to peer victimization which increases the chances of internalizing problems specifically depression and anxiety (Lösel and Bender, 2011). There is a high prevalence of anxiety-related symptoms, which include psychological manifestations like fear and worry as well as physiological ones like dry mouth, hand shaking, breathing difficulties, and irregular heart rhythm. These symptoms negatively impact adolescents' ability to function, including their academic performance, peer acceptance, and aggressive behaviour (Mathews et al., 2016).

2.0.1 Social Competence and Peer Victimization

According to the findings of a research study conducted by Caldarella and Merrell (1997), certain common social skills were identified which are considered important. These skills are peer relations including positive perspective and behavior towards peers, self-management which considers being psychologically and socially managed and adjusted, being academically successful, being compliant and showing self-confidence by being assertive.

Individuals with autism spectrum disorder (ASD) struggle in a variety of areas, including social communication, understanding and utilizing nonverbal communication, and repetitive or restricted behaviors (DSM-5-TR, 2022). These challenges are associated with issues related to social competence, which is the capacity to build and sustain positive connections and respond appropriately in social settings (Gresham, 2017). Adolescents with ASD are more likely to struggle with receptive and expressive language skills. Due to the difficulties, they encounter in social competency, individuals may consequently encounter undesirable or adverse social consequences, such rejection or expulsion from peer groups (Syriopoulou-Delli et al., 2016).

A key component of social competency is nonverbal communication, such as the use and comprehension of gestures, eye contact, and collaborative attention. Nonverbal cues are challenging for adolescents with autism spectrum disorder (ASD) to produce and understand. Specifically, stronger early responsiveness to joint attention predicts more favorable social competence outcomes later in life, while

impairments in joint attention have been linked to later social difficulties ([Gillespie-Lynch et al., 2015](#)). Inadequate social skills lead to fewer pleasant encounters and more negative ones (such as bullying or rejection), which increases anxiety and produces a vicious cycle where reduced competence leads to more suffering, making skill development more difficult ([Motoca et al., 2012](#)).

The relationship between mental health problems and peer victimisation points to a vicious cycle whereby negative peer experiences, like social rejection and peer victimisation, cause mental health problems, which in turn may exacerbate social difficulties ([Sedgewick et al., 2019](#)).

Due to their incapacity to read and comprehend social cues, and sustain positive peer relationships and interactions, adolescents with autism are more susceptible to peer victimization. This vulnerability can lead to social skills issues, internalizing issues like anxiety and depression, social rejection, low self-esteem, self-perception, social situational awareness, and difficulties interacting with others ([Morrow et al., 2019](#)).

Social competence encompasses emotional intelligence, social skills, and behavioral elements necessary for constructive and affective peer connections and interactions ([Tolan et al., 2016](#)). One of the main risk factors for peer victimization is low social competence. Peer victimization is more likely to occur when adolescents with low social competence, particularly those who struggle with social information processing, react to conflict by utilizing inappropriate approaches ([Cooley et al., 2018](#)).

Social skills and competencies play a major role in interpersonal adaptation. Skills that support social adjustment and general wellbeing include cooperation, empathy, and the capacity to perceive things from another person's perspective. These skills support the development of positive peer interactions as well as academic performance ([Hosokawa and Katsura, 2017](#)). However, adolescents with low social competence may exhibit maladjusted relationships in addition to emotional and behavioral issues ([Caporaso et al., 2019](#)).

Positive development in social competence combined with prosocial behavior enhances peer acceptance and has been shown to buffer the effects of peer victimization (Tolan et al., 2016).

Adolescents with social competency are better at navigating peer relationships, making decisions and solving problems, using constructive conflict resolution techniques, and developing and maintaining strong friendships. Additionally, adolescents who are victimized by their peers face social exclusion and rejection, a lack of social support, and opportunities to practice social skills in order to acquire effective social competency (Griese et al., 2016).

Variations in social competence throughout adolescence are associated with favorable outcomes in other areas of life. Benefits that adolescents who find it easier to form meaningful relationships with others are more likely to have include longer life expectancy, less vulnerability to mental health issues, and improved socio-emotional functioning (Luthar, 2006). Adolescents who are socially skilled are much more likely to report feeling accepted or doing well in school. Bullying, violence, social anxiety, and peer rejection are among the additional problems that are seen when social competence appears to be lacking (Lin and Huang, 2019).

2.0.2 Peer Victimization and Anxiety

According to van Schalkwyk et al. (2018), peer victimisation has been connected to hopelessness, nervousness social disengagement, loneliness, and an increased risk of suicide thoughts among adolescents with ASD. Numerous prospective longitudinal studies have shown that adolescent experiences of peer victimization are a significant predictor of elevated anxiety (Geoffroy et al., 2018). Anxiety negatively impacts family life, academic outcomes, and engagement in daily activities for autistic children (Ambrose et al., 2022).

Approximately one in three adolescents have been victims of peer bullying at some point in their lives, and others have been the targets of ongoing bullying and victimization for weeks or months (United Nations Children's Fund (UNICEF), 2019). According to Christina et al. (2021), peer victimization raises the likelihood of mental health issues, particularly anxiety. Adolescents who experience peer victimization are three times more likely to suffer from anxiety disorders and feel

apprehensive and anxious than those who are not victimized ([Stapinski et al., 2014](#)).

Research indicates that anxiety is a frequently occurring co-morbid condition in children and adolescents with autism, and that anxiety levels are higher in autistic adolescents than in non-autistic counterparts ([Bernardin et al., 2021](#)). Increased anxiety in autistic people causes behavioural problems, anger management problems, a poor quality of life, and decreased engagement and enjoyment in activities ([Lin and Huang, 2019](#)).

Adolescents with ASD who experience peer victimization are more likely to experience negative emotional and behavioral outcomes. Adolescents with ASD report higher levels of anxiety-related symptoms, which cause them to internalize these unpleasant peer experiences and acquire a sense of self-blame that contributes to social rejection and isolation ([Cappadocia et al., 2012](#)). Children and adolescents who are under pressure to fit in with society's expectations may also experience anxiety. The main indicators include uncertainty, issues with self-perception, social skills or competence, social rejection, low self-esteem, and problems with social interactions and communication, self-perception and inadequately integrated psychosocial well-being ([Boulton et al., 2010](#)). Negative life events and mental or physical traumas, such as being bullied or abused, can also contribute to the development of anxiety ([Menken et al., 2022](#)).

Peer approval and acceptance are highly valued during childhood and adolescence, but persistent peer rejection or victimization has a detrimental effect on psychological wellness ([Salerni and Messetti, 2025](#)). Peer victimization at this stage is associated with internalizing problems such anxiety, depression, diminished social competence and self-esteem, severe distress, and fear of the future, which eventually results in social avoidance and loneliness. Autistic adolescents have a 42% higher risk of having anxiety disorders than their non-autistic counterparts ([Lei et al., 2024](#)). Research suggests that adolescents with ASD are more likely to experience anxiety when their social environment becomes more complicated, their vulnerabilities become more noticeable and they may then struggle with social adjustment and communication ([Ben-Itzhak et al., 2020](#)).

PV has higher psychological impact during adolescence since peer approval is valued more during this time. Frequent PV by peers can lead to severe distress and self-blame leading to social avoidance and isolation (Boulton et al., 2010). Adolescents who experience anxiety may be more likely to become victims of their peers, and those who experience PV may experience higher anxiety levels (Jenkins and Demaray, 2015).

2.0.3 Peer Victimization as a Mediator

Adolescents with autism are particularly susceptible to peer victimization due to their inability to read social cues and create, sustain, and manage constructive peer relationships and interactions. A lack of social skills and deficits in social competence make an individual more susceptible to both less favourable and more negative interactions and experiences, such as bullying, social isolation, or rejection (Morrow et al., 2019). This results in negative consequences like emotional distress, which raises anxiety and creates an endless cycle where suffering grows with decreased competence, making skill development more challenging (Motoca et al., 2012). According to a study, peer victimization was more common among adolescents with ASD and was substantially correlated with higher levels of anxiety and depression, loneliness, and a lower level of social skills. This suggests that anxiety in adolescents is accompanied by social competence deficits and a higher risk of victimization.(Ung et al., 2016).

There is relationship between peer victimization and mental health problems, indicating an ongoing process in which social rejection and other negative peer experiences cause mental health problems, which may then result in more social difficulties (Sedgewick et al., 2019). Peer victimization because of the decreased social competence can result in internalizing issues such as depressive and anxious feelings, social rejection, a lack of social situational awareness, altered self-perception, low self-esteem, and difficulty communicating with others (Morrow et al., 2019). As a result, people with lower social competence find it more difficult to handle social settings, which increases their vulnerability to unpleasant experiences like peer victimization and exacerbates anxiety symptoms (Boulton et al., 2010).

2.1 Rationale

Adolescence is a critical developmental stage characterized by experiences and social circumstances that influence psychological, emotional, and cognitive development (Backes et al., 2019). This stage is marked by increased reliance on peer relationships (Raphael, 2013) Strong friendships help people become more socially competent, which lessens or buffers the effects of bad events (Siegel et al., 2009). Peer connections are particularly challenging for adolescents with ASD, and they are at greater risk to be victimized by their peers (Maiano et al., 2016).

Autism spectrum disorder is characterized as consistent impairments in social communication, interactions, and socio-emotional reciprocity. These challenges impact social competence that is certainly core of autism and hence it limits the capability of initiating, maintaining and navigating peer interactions and relationships (DeLay et al., 2016). Individuals with ASD struggle with communication, face discrimination, stigma and limited social support (Jones et al., 2012). PV causes stress, difficulty controlling emotions and behavior, and psychological concerns such as anxiety (Christensen et al., 2012). Adolescents with ASD are more likely to be socially excluded, verbally and physically bullied and age-appropriate social integration is often challenging for them to accomplish (Locke et al., 2010).

Reduced social competence has been linked with increased vulnerability of peer victimization. Adolescents with ASD lack the core characteristics of social competence due to their neurodevelopmental deficits. The development of higher social competence is directly hampered by these deficiencies in effective communication, reciprocal interaction, social problem-solving abilities, decision-making, social comprehension, recognizing social cues, and maintaining peer relationships (Silveira-Zaldivar et al., 2021). Because of these difficulties, adolescents with autism are more likely to be victimized by their peers because they display unusual social behaviors that go against social standards, which causes their fellow students to reject them (Brendgen, 2018).

Furthermore, deficits in perspective-taking and emotional regulation may hinder adolescents with ASD from responding adaptively to social conflicts or teasing,

reducing their ability to protect themselves or seek appropriate support (Mazefsky et al., 2013). Limited social competence may also restrict opportunities for positive peer interactions, leading to social isolation, which further heightens the risk of repeated victimization (Reavis et al., 2010). Over time, such negative peer experiences can reinforce maladaptive social patterns, creating a cycle in which victimization further undermines social confidence and competence (Lopez and DuBois, 2005). These findings underscore the importance of early and targeted interventions aimed at strengthening social competence as a protective factor against peer victimization in adolescents with ASD.

PV is considered both an academic stressor as well as a fundamental social concern leading to maladjustment and psychological instability in autistic adolescents (Tsaousis, 2016). It is a serious issue for neurotypical adolescents but more problematic for those with ASD because of their increased vulnerability (Hwang et al., 2018). Adolescents with ASD differ significantly from their neurotypical counterparts in terms of emotional, developmental, and social aspects, communication challenges, non-normative social skills, and social discrimination and stigma (Adams and Emerson, 2021). Adolescents with autism are more likely than their neurotypical peers to experience peer victimization due to impairments and neurodevelopmental challenges (Hwang et al., 2018).

According to Tolan et al. (2016), social competence includes emotional intelligence, social skills, and behavioral components required for positive and affective peer relationships and interactions. The capabilities allow individuals to interpret social cues, understand the social environment and effectively work through the social situations. It has been demonstrated that prosocial behavior and positive social competence development increase peer acceptance and mitigate the negative consequences of peer victimization (Jung and Schröder-Abé, 2019). Moreover, the development of positive social relationships and adaptive social skills lead to psycho-social development thereby reducing the chances of peer victimization and its psychological consequences specifically anxiety (Tolan et al., 2016).

There is currently a scarcity of studies addressing the interlink of social competence, peer victimization and anxiety in individuals with ASD specifically in the

local context. There is a lack of knowledge about the epidemiology of ASD in Pakistan as a result of under-reporting of the condition, unawareness and negligence in seeking mental health treatment due to social stigma and misunderstandings (Asghar et al., 2023).

The present study was focused on adolescents with ASD due to their heightened susceptibility to emotional and social difficulties, unfavorable peer experiences, and the ensuing anxiety and psychological discomfort. Additionally, adolescents were chosen from special education schools since these organizations are structured and enable consistent, thorough observation and comprehension of a monitored school setting where social dynamics may be understood. The data was collected from the parents of the diagnosed ASD adolescents since they could give valuable insights about their psycho-social functioning.

The purpose of this study is to enhance and deepen the understanding of how social competence affects the social and emotional aspects of the experiences of adolescents with ASD who already struggle with social skills deficiencies. Considering the already persistent psycho-social difficulties, the experiences of peer victimization could further increase the psychological distress leading to anxiety, and withdrawal (Rueger and Jenkins, 2014).

The current study will help understand the underlying mechanism and dynamics. The findings will help to inform the development of an evidence-based inclusive educational practices and psychologically supportive learning environment for adolescents with ASD. The findings will provide practical guidance on what actions to take and how to create meaningful impact, establishing an empirical foundation to support educators and mental health care providers in designing and implementing targeted interventions.

2.2 Theoretical Framework

Social identity theory (SIT) explains a person's sense of self is related to their perceived membership in a particular social group (Tajfel, 1970). People generally categorize or perceive themselves as a part of the 'in group' (the group to which they belong), and others as a part of the 'out-group' (a group to which they do

not belong) deriving their sense of self, and social conduct based on these categorizations. Such classifications influence attitudes, emotional responses, views and perceptions (Turner et al., 1979).

Furthermore, individuals categorize and compare people to enhance their self-esteem and discriminate or dominate over the ones that are considered out-group. Individuals strive to improve their standings and social status in order to increase the self-concept and self-esteem.

Social classification as an in-group or out-group is based on an individual's traits and affiliation with certain social, economic, or cultural groups. Depending on the social category they fall into, people's perceptions of and interactions with others are shaped by the social experiences they have. Their social understandings are sharpened during interactions, which in turn guide and mold their behaviors (Tajfel, 1970).

Since peer interactions are crucial to social development in school settings, the SIT framework is especially helpful for interpreting the experiences of adolescents with autism spectrum disorder (ASD). Adolescents with ASD have innate language and communication challenges that affect their social competence, which limits their capacity to establish and maintain meaningful interactions with peers. Peer interactions play a crucial role in the development of social identities during adolescence, however adolescents with ASD frequently have lower levels of peer acceptance and less integration into classroom social structures (Chamberlain et al., 2007). The affected social competence restricts possibilities for constructive peer interaction which includes abilities in social reciprocity, cooperation, and communication.

This theory explains that people usually uplift and maintain their status to enhance their positive self-image often perceiving the out group as inferior, particularly if they exhibit non-normative behaviors. Autistic individuals may differ from typical ones, and they may be perceived as less competent, face stigma and discrimination which damages their overall wellbeing and make them vulnerable to victimization. Rejection by peers could lead to internalizing issues, feelings of not being worthy and increased anxiety (Perry and Ostrov, 2023).

Adolescents who are neurotypical tend to prefer their in-group. This preference and imbalance results in stigma-based PV (Earnshaw et al., 2018). In-group favoritism could take place that leads to marginalization and discrimination that lowers to chances of being accepted by peers and others. Such behaviors from the peers restricts adolescents with ASD to build and maintain healthy relationships with them and engage in productive interactions (Rivera and Bennetto, 2023). Particularly among adolescents with autism, PV has been linked to increased anxiety, loneliness, depressive symptoms, perceptions of incompetency, diminished sense of social belonging and it restricts opportunities to practice and refine adaptive social skills (Sundberg, 2018).

Deficits in social competency in autistic adolescents is related to peer victimization and deteriorated mental wellbeing (Cooper et al., 2017). Repeated exposure to peer victimization significantly contributes to internalizing issues such as anxiety, depression, isolation and rejection along with the social sensitivity, reduced self-esteem and deteriorated self-concept (Mazurek, 2014). Furthermore, social exclusion experiences can cause autistic adolescents to repress genuine social behaviors in an effort to fit in with the norms of the dominant group. This further impairs social competence and increases emotional distress when they are still classified as out-group members, stigmatized and viewed negative due to the differences in social and psychological functioning in their daily lives (Cresswell et al., 2019).

2.3 Conceptual Model

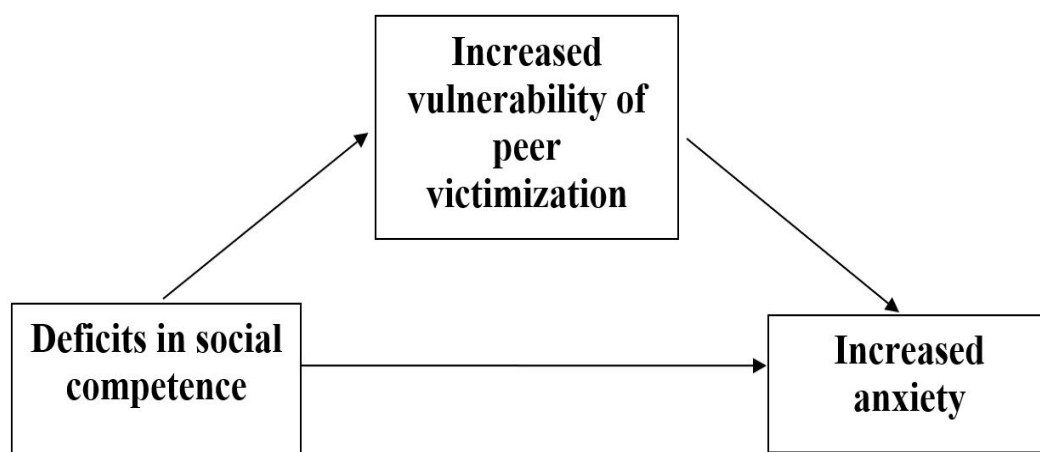


FIGURE 2.1: Deficits in social competence leads to peer victimization which consequently increases anxiety in adolescents with ASD

The conceptual model illustrates the pathway through which deficits in social competence increases vulnerability to peer victimization. The increased levels of peer victimization consequently contribute to higher levels of increases anxiety. Peer victimization acts as a mediating factor in the association between social competence and anxiety in adolescents with ASD (Luthar, 2006).

Therefore, the assumption that social competence is essential to building the capacity to flourish both socially and emotionally since it helps adolescents make relationships with others and navigate through social situations in a healthy manner. If the social skills are lacking, the adolescents are likely to struggle socially and emotionally (Poulou, 2014). Adolescents with ASD have diminished social competence and lack social skills, particularly in relation to communication and social interactions (Kojovic et al., 2019). Deficits in social communication and limited or repeated behaviours are therefore major concerns. Adolescents with ASD feel excluded and are more likely to be victimised by their peers as a result of these behavioural patterns or inadequacies (Sreckovic et al., 2014).

Chapter 3

Research Methodology

3.1 Research Design

This study used a quantitative, cross-sectional study design to examine the association between social competence, peer victimization and anxiety in adolescent with ASD. rephrase the empirical collection of data that evaluated relationships and patterns. Due of the cross-sectional approach, multiple variables were examined simultaneously in the targeted group to determine how they interrelated to one another. In addition, this design enabled to evaluate the mediation function of social competence in the relationship between anxiety and peer victimization. Given that self-report may be restricted, standardized parent report tools were utilized to collect data from the parents of the adolescents with autism.

3.1.1 Sample and Sampling Strategy

A total of 100 diagnosed adolescents with ASD were recruited from Islamabad and Rawalpindi's special education schools. The sample was selected to represent a group of individuals who are neurodiverse in order to capture a range of socio-emotional functioning in the local context. Parent-report versions of the standardized instruments were used to gather information from parents of adolescents with ASD diagnoses. This approach was selected since parents closely observe their children's behaviour in a variety of settings. Schwartz Peer victimization scale (SPVS) and Social competence scale (SCS) were translated into Urdu

while the Anxiety scale for Children with ASD-parent version that was already translated into Urdu was requested from the author.

For the recruitment of study participants, a purposive sampling approach was used. This approach is suitable since the study specifically targeted adolescents who are clinically diagnosed with autism spectrum with no comorbidities. Moreover, the adolescents were recruited from special education schools and this approach made it feasible to select participants who comply with the predetermined inclusion criteria and support the study's goals. The data was collected from the parents of the adolescents diagnosed with ASD.

3.1.2 Inclusion Criteria

Participants with following characteristics were included in the research study

- i. Adolescents with confirmed clinical diagnosis autism spectrum disorder.
- ii. Adolescents with the age range of 10 to 16 were included
- iii. Adolescents enrolled in special education programs participated since they are exposed to peer interaction.
- iv. Additionally, parents who were willing for providing consent were included.

3.1.3 Exclusion Criteria

Participants with following characteristics were excluded

- i. Adolescents with serious health conditions were not included since they may have an independent effect on peer interactions, anxiety levels, and emotional functioning.
- ii. Adolescents with the history of any neurological disorder such as epilepsy were excluded as they may have confounding effect on the social and emotional functioning.
- iii. Adolescents currently receiving any intensive psychological intervention or treatment were excluded since they may affect the variables such as social competence and anxiety.

- iv. Despite the use of parent-report measures, those with significant communication problems were not included. This is because severely impaired social and communicative functioning may limit observable peer contacts.
- v. Adolescents with co-occurring psychiatric health problems, such as Attention-Deficit/Hyperactivity Disorder (ADHD), intellectual disability of moderate to severe level, which is independently associated with higher levels of anxiety, poor social functioning, and peer victimization, were excluded to reduce confounding effects.

3.2 Measures and Instruments

3.2.1 Demographic Information Sheet

A demographic information sheet was used to gather background details from the parents of the autistic adolescents. It was developed in Urdu and included variables such as age (in years), gender of the child, educational placement (mainstream, inclusive, special education) and the diagnosis (ASD, Intellectual disability, other).

3.2.2 Schwartz Peer Victimization Scale-Parent Version

Schwartz Peer Victimization scale-parent version is a parent report scale that assesses the frequency of experiences related to peer victimization in children and adolescents (Schwartz et al., 1997). The research used the Urdu translated-version of the scale, which was translated into Urdu in accordance with the local context by the language experts and psychologists.

This scale is developed for the age range of 8-18 and it evaluates parents' assessments of how often and in what ways their child is victimized by peers. The scale consists of 12 items that are rated on 7-point Likert scale ranging from never (1) to happens almost every day (7). The scores for each item are summed to get the total score. With 12 items, the total score ranges from 12 to 84, with higher scores indicating greater levels of victimization by peers.

This scale measures verbal (teasing, name-calling), physical (hitting or pushing) and relational (exclusion or spreading rumors) forms of victimization. These aspects provide an in-depth assessment of peer victimization experiences. With a

Cronbach's alpha value of 0.89, the scale has great psychometric characteristics and high internal reliability. Because of its excellent validity and reliability in parent-reported data, the scale is often used in research studies investigating peer dynamics in normally and non-typically developing children.

3.2.3 Anxiety Scale for Children-Autism Spectrum Disorder-Parent Version

The anxiety scale for children is a standardized parent report that assesses anxiety symptoms in children and adolescents with ASD (Rodgers et al., 2016).

This scale is developed for individuals aged 8 to 16 and consists of 24 items rated on 4-point Likert scale that ranges from never (0) to always (3). The scoring range is 0 to 72 with total score of 20 above indicating anxiety. The scores for each item are summed to get the total score. The ASC-ASD-P was used for the present study that was available online and already translated by Dr. Ishrat Yousaf and Maryam Khan using standardized translation procedures, cross-cultural adaptation and psychometric evaluation procedures (Rodgers et al., 2015).

The comprises of four sub scales that demonstrate different dimensions such as Anxious arousal measures the physiological and emotional symptoms of anxiety; separation anxiety measures the discomfort associated with being separated; performance anxiety is associated with social or work expectations; and uncertainty is related to unpredictability. These sub-scales provide a detailed profile of symptoms associated with anxiety in children with ASD.

The scale has excellent psychometric properties and high internal reliability, with a Cronbach's alpha score of 0.84 to 0.94. The scale is frequently used in studies examining the symptomology of anxiety in children with ASD because of its high validity and reliability in parent-reported data.

3.2.4 Social Competence Scale-Parent Form

The social competence scale-parent form is parent-report scale that assesses child's peer relationships and socially appropriate behaviors that observed in daily life (Corrigan, 2003). The scale was translated into Urdu in accordance with the local

context by bilingual language experts and psychologists. The Urdu translated version was used in the study.

It is developed for the age range of 6-12, also extended to 18 years of age broadening the developmental range. The scale consists of 12 items, that are rated on 5-point Likert scale ranging from not at all (1) to very well. The total score is calculated as the mean of responses allowing for clear interpretation.

The scale has the sub-scales assessing cooperation evaluating child's ability to work with others, prosocial behavior assessing considerate and helping behaviors, peer acceptance demonstrating social inclusion and emotional regulation which assesses the child's ability to express and regulate emotions in social settings in an appropriate and socially acceptable manner. The scale shows good internal reliability with Cronbach's alpha coefficient of 0.80 that indicates that the scale has acceptable reliability.

3.3 Procedure

The study was conducted in two phases as it involved the translation of the scales and the data collection. In the first phase, the scales were translated from English into Urdu. In the second phase, the translated scales were used to collect data from the parents of the autistic adolescents that were enrolled in special education schools.

The details of the process are given below

3.3.1 Phase-I Translation

3.3.1.1 Forward Translation

These assessment scales; Schwartz peer victimization scale (SPVS) and Social competence scale (SCS) were translated into Urdu language following the World Health Organization's translation guidelines ([World Health Organization, 2023](#)). The initial step was contacting the original scale's writers and requesting their formal approval to translate the scales into Urdu. Following the permission, the

procedure started with forward translation carried out by bilingual language experts and psychologists who were proficient in both English and Urdu language that translated the scales from English to Urdu.

3.3.1.2 Synthesis I

A review committee which comprised of bilingual experts in psychology and the languages, examined and compared the forward translated versions of the scales and determined which items most closely represented the original scale. Moreover, modifications were made to ensure clarity and retain conceptual and cultural relevance. At this stage, a single preliminary Urdu version was developed with consensus.

3.3.1.3 Back Translation

The preliminary Urdu versions were then systematically back-translated into English by unbiased translators who were blind to the original scales in order to minimize translator bias and maintain linguistic, conceptual, and semantic transparency and equivalence between the original and translated versions of the scales.

3.3.1.4 Synthesis II

At the end of it, the back-translated versions were examined. They were contrasted with the original English scale. The review committee held discussion to resolve any discrepancies or contradictions. This process was used to ensure that the translated items accurately conveyed the original scales' meaning and intent.

3.3.1.5 Pilot Testing

Pilot testing of the final Urdu version of the scales was conducted with 10 members of the target population. The purpose of this was to verify the items' clarity, comprehensibility, and cultural relevance. The participant response confirmed

that the translated scales were relevant and comprehensible, thus no significant changes were required.

3.3.2 Phase-II

3.3.2.1 Data Collection

The intended special education schools were approached and the administration of these institutions contacted the parents in order obtain consent for the data collection. The data was collected from parents of 100 adolescents with autism. The parents were provided with details regarding the purpose of the study, all the involved procedures and the nature of the participation. Participants were reassured that the information they provided will be kept confidential, their participation was entirely voluntary and they had the right to withdraw at any time without any negative consequences. No identifying information was recorded and the all the data were stored securely.

For meaningful participation and better comprehension, all the scales were translated into the Urdu language. This was done to minimize language barrier and all the scales were kept linguistically and culturally appropriate for the targeted population. Moreover, the translation procedure increased the reliability and validity of the data that helped reducing response bias due to misunderstanding and misinterpretation. The ethical and methodological considerations empowered the rigor of the study yet the cultural context and participant's concerns were respected.

3.3.2.2 Ethical Considerations

Prior approval from the Institutional Ethics Review Committee was obtained to conduct study. Parents gave their informed consent after being fully informed about the study's purpose, utility and potential risks. Participants were informed of the study's objectives, their voluntary participation, and their right to withdraw at any time without facing consequences. The questionnaires were translated into Urdu language, set up in simple terms, gave participants sufficient of time to complete them, and offered clarification, when necessary, without affecting their responses. Confidentiality and anonymity were respected. All the data

was safely kept and utilized only for research purposes. Throughout the data collection process, a welcoming, nonjudgmental atmosphere that respected each person's comfort level and communication needs was maintained.

3.4 Data Analysis

The data was analyzed by using Statistical Package for Social Sciences (IBM SPSS 26) for a sample of 100 adolescents that were clinically diagnosed with autism spectrum disorder. The adolescents had no comorbidity. Furthermore, all of the participants were enrolled in special education schools. . After the data was entered, the data set was screened for errors and inconsistencies. Outliers, missing values, unusual scores, and data entry mistakes were eliminated.

The demographic characteristics were summarized with frequencies and percentages using descriptive statistics. The study variables such as social competence, peer victimization and anxiety were summarized with means, standard deviations, skewness and kurtosis. Kolmogorov-Smirnov test was used to test the normality of the data. The internal consistencies of the scales were analyzed using Cronbach's alpha reliability analysis. Spearman rho correlations analysis was employed to assess the correlation of social competence with peer victimization, and between peer victimization and anxiety. Mediation analysis was conducted using Hayes Process Macro (Model 4) to analyze the mediating function of social competence in the relationship between peer victimization and anxiety.

Chapter 4

Results

This section contains the data that was analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were computed to summarize the demographics characteristics of the study variables and the sample and provide an overview of the distribution. For continuous variables including the age of the adolescents and instrument scores, mean, standard deviation was analyzed and calculated. For the categorical variables, frequencies and percentages were calculated to describe and illustrate the distribution of participants across different categories such as the gender of the child, educational placement and any comorbidities.

The internal consistency of the instruments used in the study was examined using the Cronbach's alpha reliability analysis. The instruments used are parent reported versions of Schwartz Peer Victimization Scale, the Anxiety Scale for Children with Autism Spectrum Disorder, and the Social Competence Scale.

In order to analyse the assumptions of normality, the distributional characteristics of the study variables such as social competence, peer victimisation, and anxiety were assessed prior to the main analysis. The normality analysis was conducted using Kolmogorov-Smirnov (K-S) test of normality along with the descriptive factors such as skewness and kurtosis. The K-S test for normality was used since it is appropriate for moderate to large sample sizes. The K-S values then guided the selection of relevant and appropriate statistical analysis. This approach ensured the validity and reliability of the study findings.

Based on the normality test's results, Spearman's rank order correlation was applied to assess the associations between social competence (SCS), peer victimization (SPVS) and anxiety (ASC-ASD). Given that the SCS and SPVS scores did not follow a normal distribution, this test was pertinent and suitable.

Hayes Process macro (model 4) was used to perform the mediation analysis to assess the mediating function of peer victimization in the relationship between social competence and anxiety in adolescents with ASD. Accordingly, anxiety was regarded as the outcome (dependent variable), peer victimization as the mediator, and social competency as the predictor (independent variable). It is hypothesized that peer victimization will mediate the relationship which implies that the deficits in social competence increase the vulnerability of peer victimization which in turn lead to the elevated anxiety in adolescents with ASD (Boulton et al., 2010).

This study consisted of 100 participants, all of which provided complete data for the variables. The minimum age considered was 10 years and the maximum age was 16 years which shows the variability in terms of social and emotional learning.

4.1 Descriptive Characteristics

TABLE 4.1: Descriptive characteristics of the adolescents (N=100)

Variable	Categories	f	(%)
Gender of Child	Boy	57	57.0
	Girl	43	43.0
Educational Placement	Special Education	100	100.0
Comorbidity	None	100	100.0

Note. f = frequency, % = percentage.

Table 4.1 shows the demographic characteristics of the study sample. The sample consisted of 100 adolescents. The gender distribution was 57% males (f= 57) and 43% females (f= 43). All of the students (100%) were enrolled in special education

program indicating that each of them was receiving structured educational support. Additionally, the data demonstrates that all individuals (100%) did not have any comorbidities, allowing the results to be explained and interpreted only on the basis of autism and without reference to any other mental health or psychological conditions.

4.2 Reliability Analysis of the Instruments

To find out the reliabilities of the scale, Cronbach's Alpha reliability analysis was conducted. The results of the analysis are presented in the following table.

TABLE 4.2: Reliability analysis of Urdu translated versions of parent reports of Schwartz peer victimization scale (SPVS), anxiety scale for children with autism spectrum disorder (ASC-ASD) and social competence scale (SCS) (N=100).

Scale	N	M	SD	α
SCS	12	1.7092	0.79256	0.927
SPVS	12	56.6800	16.89473	0.967
ASC-ASD	24	35.6900	13.31415	0.944

Note. N = Number of items; M = Mean; SD = Standard deviation; α = Cronbach's alpha.

Table 4.2 shows the reliability analysis for parent reported versions of Schwartz peer victimization scale (SPVS), anxiety scale for children with autism spectrum disorder (ASC-ASD) and social competence scale (SCS). The internal consistency was measured using Cronbach's alpha reliability analysis. For SPVS, comprising of 12 items, the mean score calculated was 56.68 (SD= 16.89) with an excellent internal consistency with a Cronbach's alpha of 0.967 ($\alpha= 0.967$) indicating that the scale reliably measures the intended construct of peer victimization. The results indicate that adolescents with autism are more likely to suffer from negative social experiences like peer victimization and subsequent distress, which is consistent with earlier research findings (Brendgen, 2018). According to Stapinski et al. (2014), adolescents who are victimized by their peers are three times more likely to have anxiety-related conditions and to feel nervous and apprehensive. ASC-ASD consisting of 24 items showed a mean score of 35.69 (SD= 13.31). The internal

consistency of the scale showed to be very high with a Cronbach's alpha of 0.944 ($\alpha = 0.944$). The mean score indicated moderate anxiety samples within the study sample which aligns with the literature that states that negative life events and mental or physical traumas, such as being bullied or abused, can also contribute to the development of anxiety (Zhu et al., 2022) (Zhu et al., 2019). The SCS consisting of 12 items had a mean score of 1.7 (SD= 792). This scale also demonstrated high internal consistency with a Cronbach's alpha value of 0.927. The mean scores demonstrated that on average, the participants exhibited moderate levels of social competence which implies that, even though the sample has certain levels of social skills, they continued to experience challenges which is consistent with core difficulties with autism (Ladd et al., 2014).

4.3 Normality Statistics

The normality statistics along with the descriptive characteristics of social competence (SCS), peer victimization (SPVS) and anxiety (ASC-ASD) in the adolescents with ASD are presented in the following table.

TABLE 4.3: Kolmogorov-Smirnov values along with descriptive characteristics of parent versions of Schwartz peer victimization scale, anxiety scale for children with autism spectrum disorder and social competence scale (N=100).

Variable	M	SD	Skew	Kur	Min	Max	p
SCS	1.7092	0.79256	0.090	-1.136	0.17	3.25	0.005
SPVS	56.7	16.9	-0.72	-0.62	19	81	0.000
ASC	35.69	13.3	-0.05	-0.806	9	61	0.118

Note. M = Mean; SD = Standard deviation; Skew = Skewness; Kur = Kurtosis; Min = Minimum; Max = Maximum; p = significance value; SPVS = Schwartz peer victimization scale; ASC-ASD = Anxiety scale for children with autism spectrum disorder; SCS = Social competence scale.

Table 4.3 demonstrates descriptive and normality statistics of SPVS, ASC-ASD and SCS. Peer victimization (SPVS) scores ranged from 19 to 81, with a mean score of 56.70 and a standard deviation of 16.90. Kurtosis (K = -0.62) and skewness (Sk

= -0.72) were also slightly negative. A significant result of 0.00 ($p < 0.001$) was obtained from the Kolmogorov-Smirnov normality testing which suggested that the scores were not normally distributed. The non-normality necessitated the use of non-parametric statistical analysis. Anxiety scores (ASC-ASD) ranged from 9 to 61, with a mean score of 35.69 and an SD of 13.30. With a skewness value of -0.05 and kurtosis of -1.14, which fall within the normal range. The normality analysis produced a non-significant KS value of $p=0.118$ ($p > 0.05$). This value supported the assumption that the scores were normally distributed.

The mean Social Competence score (SCS) was 1.71 with an SD of 0.79. the score ranged from 0.17 to 3.25 which indicates that the average adolescents with ASD exhibited moderate levels of social competence. Kurtosis and skewness were found to be -1.14 and 0.09, respectively. Additionally, the KS value ($p=0.005$) was significant indicating a deviation from normality which indicates that the scores of social competence was not normally distributed. This suggests that there was variability in the social skills in the adolescents with ASD, as some showed higher scores while others low on social competence scale.

SPVS and SCS score distributions significantly deviated from normality while the ASC showed a normal distribution. This information allowed for selecting relevant and appropriate statistical analysis. Non-parametric testing was deemed appropriate since the data is non normally distributed to assess the association between social competence, peer victimization and anxiety in adolescents with ASD.

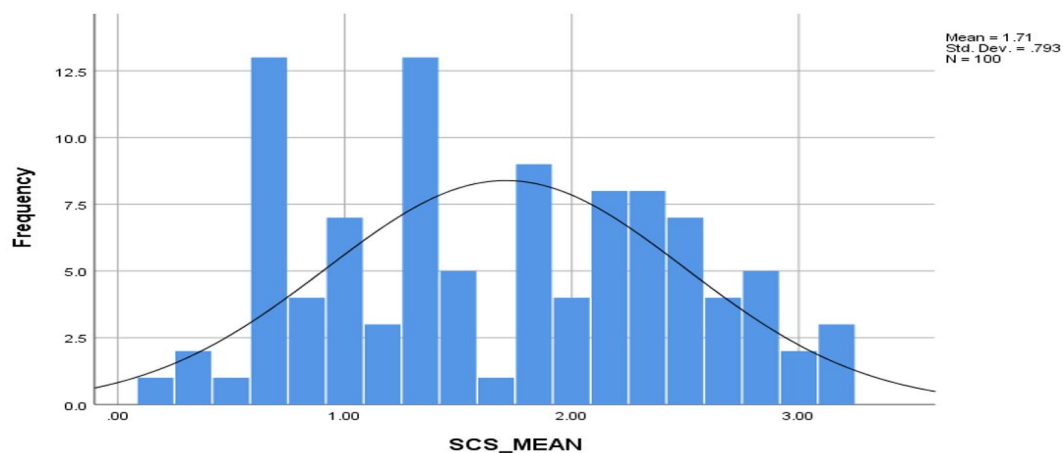


FIGURE 4.1: Histogram depicting the distribution of social competence scores (SCS)

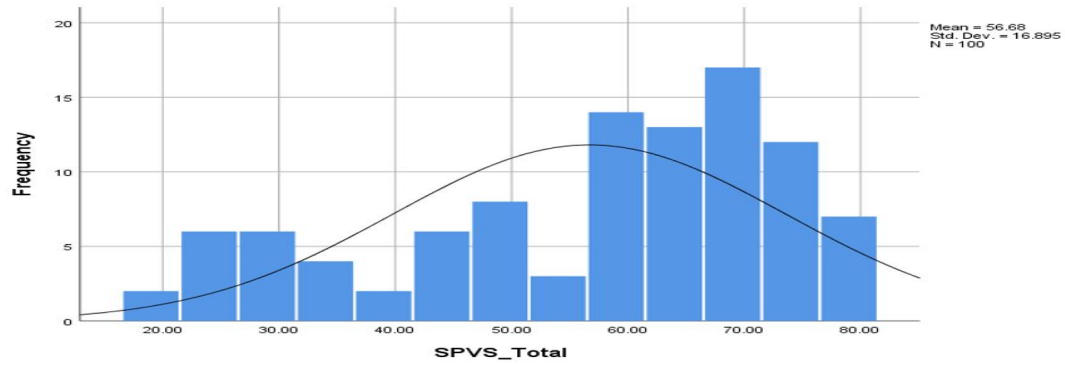


FIGURE 4.2: Histogram showing the distribution of Peer Victimization scores (SPVS)

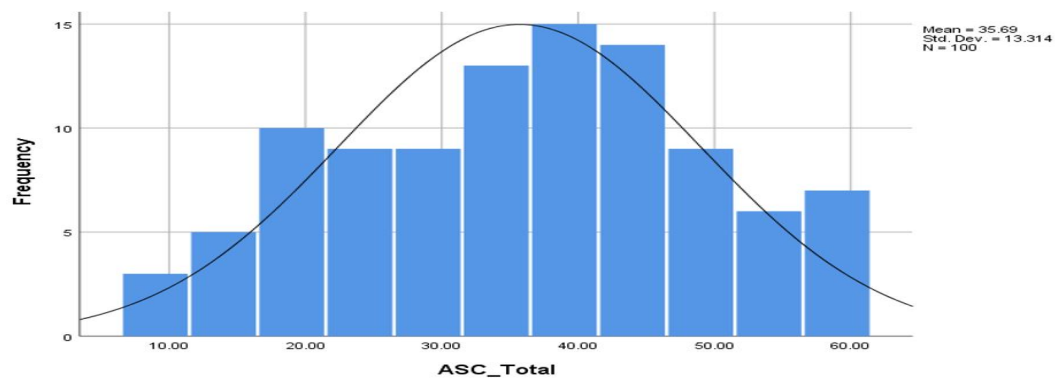


FIGURE 4.3: Histogram depicting the distribution of Anxiety scores (ASC-ASD)

4.4 Correlation Analysis

The Spearman rho correlation analysis was conducted to assess the association between social competence (SCS), peer victimization (SPVS) and anxiety (ASC-ASD) in adolescents with ASD. The Spearman rho correlation analysis was conducted due to non-normal distribution. The results of the analysis are presented in the table given below.

TABLE 4.4: Spearman rho correlations among peer victimization scale, anxiety and social competence scale (N=100).

Variables	n	M	SD	SPVS	ASC-ASD	SCS
SPVS	12	56.7	16.90	-	0.53**	-0.73**
ASC-ASD	24	35.69	13.3	-	-	-0.52**
SCS	12	1.71	0.79	-	-	-

Note. SPVS= Schwartz peer victimization scale; ASC-ASD= Anxiety scale for children with ASD SCS= Social competence scale.

Table 4.4 shows the descriptive characteristics of SPVS, ASC-ASD and SCS which demonstrate that autistic adolescents experienced moderate levels of peer victimization ($M= 56.7$, $SD= 16.9$), moderate levels of anxiety ($M= 35.69$, $SD= 13.3$) and have moderate social competence ($M= 1.71$, $SD= 0.79$). The large values for standard deviation indicate there was variability in experiences of the sample. Although, overall levels were moderate, some of the participants experienced higher levels of peer victimization and anxiety while some of them showed lower levels of peer victimization and anxiety.

The table shows Spearman's rank-order correlation analysis which revealed the interconnected nature of social competence, peer victimization and anxiety. A statistically significant and moderately positive correlation was observed between peer victimization (SPVS) and anxiety ($\rho= 0.53^{**}$, $\rho < 0.01$) which indicates that higher levels of peer victimization is related with higher levels of anxiety. The findings are consistent with the literature demonstrating that peer victimization leads to anxiety (Siegel et al., 2009). By reinforcing poor self-evaluations, unfavorable social judgements of peers, fear or avoidance of social contacts, or bad impressions of the school environment, peer victimization enhances sensitivity to internalizing difficulties specifically anxiety and depression (Nickerson et al., 2014).

A strong, statistically significant negative correlation was demonstrated between peer victimization and social competence ($\rho= -0.73^{**}$, $\rho < 0.01$) indicating that reduced social competence was linked with higher levels of peer victimization. The findings are consistent with the literature that demonstrate the reduced social competence increase the vulnerability of peer victimization (Morrow et al., 2019).

Social competence (SCS) has shown to have a significant and moderately, negative correlation with anxiety ($\rho= -0.52^{**}$, $\rho < 0.01$). This explains that reduced social competence is linked with increased anxiety and the findings are consistent with the literature (Stark et al., 2023). People with poorer social competence struggle in social situations, which makes them more susceptible to negative experiences like being victimized by their peers and makes their anxiety symptoms worse (Boulton et al., 2010). Reduced social competence is associated with elevated anxiety from childhood through adolescence, according to another study, which implies that

social skill deficiencies account for the emergence of anxiety-related issues later in life (Habibi Asgarabad et al., 2023).

The significant values across all the correlations demonstrated the interlinked nature of social competence, peer victimization and anxiety among adolescents with ASD.

4.5 Mediation Analysis

Table 4.5 shows the mediation analysis carried out to assess the mediation function of peer victimization in the relationship between social competence and anxiety among adolescents with ASD. The social competence acts as predictor, peer victimization as mediator and anxiety as outcome variable.

TABLE 4.5: Mediation analysis with Social Competence (SCS) as predictor, Peer Victimization (SPVS) as a mediator, and Anxiety (ASC-ASD) as outcome.

Effect	Estimate (b)	SE	95% CI (LL - UL)	p
Direct effects (Outcome: Anxiety - ASC-ASD)				
Intercept	28.18	8.25	11.79 – 44.57	0.0009
Social Competence (SCS_M)	-4.45	2.02	-8.45 – -0.45	0.0298
Peer Victimization (SPVS_T)	0.27	0.09	0.08 – 0.45	0.0058
Indirect effects				
Total indirect effect	-4.05	1.31	-6.54 – -1.34	—
Peer Victimization (SPVS_T)	-4.05	1.31	-6.54 – -1.34	—

Note. SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit; p = significance value.

Mediation analysis was conducted using Hayes Process Macro (model 4) to examine whether peer victimization functions as a mediator in the relationship between social competence and anxiety among adolescents (N=100) with ASD. Social competence (SCS) acted as the predictor variable, peer victimization (SPVS) as the mediator and anxiety (ASC-ASD) as the outcome variable. The results demonstrated that social competence significantly predicted peer victimization (b= -15.19, SE= 1.51, p < 0.001). The negative coefficient indicates that higher levels of

social competence is associated with lower levels of peer victimization. The data explained 50.8% (R-sq= 0.508) variance in peer victimization that indicates a strong relationship between social competence and peer victimization. According to [Motoca et al. \(2012\)](#), poor social skills result in more unpleasant interactions and fewer positive ones (such bullying or rejection), which raises anxiety and makes skill development more challenging.

Social competence has shown to have a significantly negative effect on anxiety ($b = -4.45$, $SE = 2.02$, $p = 0.0298$) which indicates that adolescents with deficits in social competence demonstrates increased anxiety levels in adolescents. Peer victimization had a significantly positive impact on anxiety ($b = 0.27$, $SE = 0.09$, $p = 0.0058$), which suggested that increased levels of peer victimization is associated with higher levels of anxiety. Altogether peer victimization and social competence demonstrated 31.2% variance in the anxiety levels. Higher levels of anxiety and sadness, loneliness, and a lack of social skills were all substantially linked to peer victimization. This suggests that anxiety in adolescents is linked to a vulnerability to victimization and a lack of social competence ([Ung et al., 2016](#)) Using peer victimization as a mediator, the indirect effects of social competence on anxiety were statistically significant, with an estimated value of -4.051 and standard error of 1.318. The 95% bootstrapped confidence interval value of -6.54 to -1.34 demonstrated that social competence influences anxiety indirectly by reducing peer victimization and hence lowering the anxiety levels. Peer victimization resulting from a lack of social competence can lead to internalizing issues such as anxiety and feelings of sadness, social rejection, a lack of social situational awareness, changed self-perception, low self-esteem, and difficulty communicating with others ([Morrow et al., 2019](#)).

Both the direct and indirect effects of social competence on anxiety were found to be significant and the results indicated the partial mediation which indicates that the predictor variable (SCS) influence the outcome variable (ASC-ASD) both indirectly and directly, with and without the mediator (SPVS). The direct effect of social competence on anxiety was found to be significant and negative ($b = -4.45$) and the indirect effect of social competence on anxiety through peer victimization was also significant ($b = -4.05$).

Chapter 5

Discussion and Conclusion

5.1 Discussion

Autism spectrum disorder (ASD) is neurodevelopmental disorder that is characterized by deficits in social skills, communication and interactions. The adolescents with autism face challenges regarding social competence that comprises of abilities required for effective communication and developing and maintaining social relationships. Due to these difficulties, adolescents with ASD are less likely to be accepted by the society and more likely to be victimized and excluded. This as a result lead to psychological distress specifically anxiety. People with ASD are susceptible to peer victimization because of their cognitive impairments, underlying social difficulties, limited interests, repetitive behaviours, and difficulties interacting with others (Storch et al., 2012). Vulnerability is further increased by a lack of social support (Locke et al., 2010). Additionally, the likelihood of PV is increased by anxiety, behavioural difficulties, and reactive stimuli in ASD (Erath et al., 2012).

Peer victimization therefore results in social problems such rejection and withdrawal as well as anxiety (Aftab et al., 2024). Moreover, there are misconceptions and less awareness regarding the understanding of symptoms and core features of autism in the Pakistani population as indicated by the research studies (Imran et al., 2011). A study was conducted in Karachi in which the results showed that while 75% of respondents had heard of autism, only a few number of them were aware of its primary symptoms and indications (Anwar et al., 2018). A study

found that peer victimisation was more prevalent among adolescents with ASD and was significantly associated with higher depression and anxiety levels, loneliness, and poorer social skills. This implies that social competence deficiencies and an increased risk of victimisation are associated with anxiety in adolescents. (Ung et al., 2016)

The relationship between peer victimization and social competence in adolescents with autism spectrum disorder was examined in the current study. Additionally, it examined how peer victimization functions as a mediator in the relationship between social competence and anxiety. There were 100 diagnosed autistic adolescents between the ages of 10 and 16 ($M=12.96$, $SD=2.11$) in the study; 43 were female and 57 were male. None of the adolescents had any comorbidities and all were enrolled in special education programs.

Reliability analysis showed that all the scales had excellent internal consistency such that the Schwartz peer victimization scale (SPVS) had $\alpha= 0.967$, anxiety scale for children with autism spectrum disorder (ASC-ASD) had $\alpha= 0.944$ and social competence scale (SCS) had $\alpha= 0.927$. The reliability was demonstrated by the original scales, which included $\alpha = 0.89$ for SPVS, $\alpha = 0.84$ to 0.94 for ASC-ASD, and $\alpha = 0.80$ for SCS.

IBM SPSS 26 was used to analyze the data for a sample of 100 adolescents with ASD. Descriptive statistics were used to summarize the demographic features using percentages and frequencies. The means, standard deviations, skewness, and kurtosis were used to summarize the research variables. The data's normality was examined using the Kolmogorov-Smirnov test. Cronbach's alpha was used to analyze the scales' reliability. The correlation between the variables was evaluated using Spearman's rho correlation analysis. The mediating role of social competence in the connection between anxiety and peer victimization was examined using mediation analysis utilizing Hayes Process Macro (Model 4).

The study findings showed a strong negative correlation between social competence and peer victimization ($\rho= -0.725$, $p < 0.01$) which is consistent with the first hypothesis stating that social competence will have significantly negative association

with peer victimization. The results indicate that the adolescents with reduce social competence will be more vulnerable to peer victimization and those with higher social competence will experience lower levels of peer victimization. The mediation analysis further confirms that social competence significantly predicts peer victimization ($b = -15.19$, $SE = 1.51$, $p < 0.001$).

The results obtained are in accordance with previous studies. In addition to being associated with anxiety symptoms, social skills deficiencies or decreased social competence have been found to be a potent indicator of peer victimization. Reduced social competence or social skills can lead to negative peer reactions, such as rejection or stigmatization, which ultimately leads to peer victimization (Perren and Alsaker, 2009).

Research indicates that higher social competence acts as a protective factor against peer victimization, while lower social competence increases the likelihood of it (Morrow et al., 2019). Adolescents who are socially adept are more likely to handle peer relationships and lower their risk of becoming victims. Due to their inability to read social cues, form, comprehend, and sustain positive peer relationships and interactions, autistic adolescents with deficiencies in social competence are more susceptible to peer victimization. This can lead to issues with interpersonal abilities, internalizing issues like anxiety and depression, social rejection, low self-esteem, and difficulty interacting with others (Syriopoulou-Delli et al., 2016).

The hypothesis that peer victimization will have a considerably positive relationship with anxiety is supported by the results of Spearman's correlation analysis, which revealed a moderately positive association between peer victimization and anxiety ($p = 0.534^{**}$, $p < 0.01$). According to the findings, adolescents with autism who are more likely to be victimized by their peers are at a greater risk to experience increased levels of anxiety levels. Additionally, peer victimization significantly increases anxiety, according to mediation analysis results ($b = 0.27$, $SE = 0.09$, $p = 0.0058$).

The results of the study are in accordance with the earlier research that suggests internalizing problems like anxiety and depression are caused by repeated exposure to peer victimization (Siegel et al., 2009). Peer victimization increases

the likelihood of depression and anxiety and feelings of apprehension and stress in adolescents threefold compared to those who do not experience victimization (Stapinski et al., 2014). Due to the difficulties with social communication and the abilities needed to establish and preserve positive peer connections, adolescents with ASD are more likely to experience victimization, which in turn causes anxiety. Peer victimization, rejection, and social isolation can be extremely damaging, and autistic persons already have difficulty establishing and sustaining healthy peer connections (Holden et al., 2020). Peer victimization has been associated with internalized psychological issues and psychopathology in adolescents or adults (Ferrigno et al., 2022).

According to the third hypothesis, anxiety will be increasing as a result of social competency deficiencies, and the analysis's findings support this hypothesis. The analysis's conclusions are in line with previous research. People who are less socially competent have more difficulty interacting with others, which makes them more susceptible to negative experiences like being victimised by their peers and makes anxiety symptoms worse (Boulton et al., 2010). Since decreased social competence is associated with greater anxiety from childhood to adolescent, social skill deficiencies explain the emergence of anxiety-related issues later in life (Habibi Asgarabad et al., 2023).

The fourth hypothesis of the study stated that peer victimization will mediate the relationship between social competence and anxiety in adolescents with ASD. The results of the mediation analysis were consistent with the hypothesis that the relationship between social competence and anxiety was partially mediated by peer victimization. The findings showed that social competence significantly influenced anxiety both directly ($b=-4.45$, $SE=2.02$, $p=0.0298$) and indirectly ($b=-4.05$, $SE=1.318$) through peer victimization. These results show that adolescents with ASD who are less socially adept are more likely to be victimized by their peers, which raises their anxiety levels. Deficits in social competence lead to fewer pleasant experiences and more negative ones (such bullying or rejection), which increases anxiety. It creates a vicious cycle where challenges with skill development arise, increasing the difficulties for adolescent with ASD (Motoca et al., 2012). According to diathesis model of stress, which describes the reciprocal relationship

between an individual and their surroundings, social competence deficiencies, particularly in adolescents with autism, serve as an inbuilt vulnerability that raises the likelihood of peer victimization which ultimately leads to anxiety (Juvonen and Schacter, 2017). Another study suggests that social skill deficits explain the development of anxiety-related problems later in life, since reduced social competence is linked to increased anxiety from childhood to adolescence (Habibi Asgarabad et al., 2023).

Internalizing problems like depressive and anxious feelings, social rejection, a lack of social situational awareness, altered self-perception, low self-esteem, and difficulties communicating with others can arise from peer victimization due to the decreased social competence (Morrow et al., 2019). A higher level of social skill lowers the likelihood of anxiety and peer victimization. Anxiety is influenced by social competence both directly and indirectly in the relationship among anxiety, peer victimization, and social competence in adolescents with ASD.

Overall, the findings of the study highlight and help understand the interplay and the interlinked nature of social competence, peer victimization and anxiety in adolescents with ASD. Social competence acted as a buffering factor that mitigates the adverse effect of peer victimization and lowers anxiety. Peer victimization has been found to be a risk factor that enhances emotional, social as well as psychological difficulties. Internalized psychological problems and adolescent or adult psychopathology have been linked to peer victimization (Ferrigno et al., 2022).

According to research, social achievement which includes having positive relationships with peers and academic success are linked to social competency (Perren and Alsaker, 2009). Adolescents with higher levels of social competence and ability have been found to be more popular in their social circle and surroundings, have better social communication and conflict resolution abilities, are more accepted by their peers, and experience fewer rejections from them (Green and Rechis, 2006). Furthermore, adolescents who exhibit positive social competence have a greater chance to have meaningful and productive interpersonal interactions, which lowers the risk of both general emotional or behavioral issues and peer-related challenges (Bornstein et al., 2010).

This study also helps understanding the psychosocial challenges that adolescents with ASD face. Autistic individuals already have challenges with establishing and sustaining healthy peer relationships, as well as social isolation, rejection, limited interests, repetitive behavior, and cognitive abilities that make them more susceptible to peer victimization, which can be detrimental and lead to anxiety (Holden et al., 2020). In the given data, all the participants were enrolled in special education programs with no comorbidity. The findings highlight the need of supportive and inclusive educational environments, which allows social and emotional growth, instill social skills, support programs and foster psychologically and socially supportive environment.

The study also contributes to the understanding of psychosocial vulnerabilities in adolescents with ASD. Given that all participants were enrolled in special education programs without co-morbid conditions, the findings highlight that even within supportive educational settings, social and emotional challenges persist and require targeted interventions. The results support the implementation of school-based social skills training, peer support programs, and anti-bullying policies to foster inclusive and psychologically safe learning environments so that the adolescents with ASD feel accepted and flourish.

5.2 Conclusion

The crucial developmental stage of adolescence is when social, psychological, and physical changes take place. Relationships with peers and social interactions are crucial in defining mental and emotional health (Lerner et al., 2017). According to Engel and Gunnar (2020), this stage includes behavioral changes such as autonomy and a desire to build relationships with peers. Due to their difficulties with social communication, adolescents with autism spectrum disorder (ASD) are more likely to encounter undesirable peer experiences including being victimized by their peers. Peer victimization increases the likelihood of social competence deficits, which exacerbates anxiety symptoms and negatively impacts overall functioning and wellbeing (Siegel et al., 2009).

The relationship between social competence, peer victimization, and anxiety in adolescents with autism spectrum disorder was assessed in this study, as well as

the mediating function of peer victimization in the relationship between social competence and anxiety. The evidence-based results demonstrated the psychological consequences as well as the interdependence of the studied variables. The results showed that those who were more socially adept had lower levels of anxiety and peer victimization. On the contrary, adolescents with lower social competence were found to have higher anxiety levels and to be more susceptible to peer victimization. Peer victimization partially mediates the association between social competence and anxiety, according to the mediation analysis.

The findings indicate that social competence influences anxiety directly as it promotes emotional regulation, instills better communication skills and adaptive functioning. Social competence, or the ability to start and maintain effective peer relationships, is necessary for adaptive social functioning. Autistic adolescents are more vulnerable to negative peer experiences, such as peer victimization, which exacerbates anxiety and hinders adaptive social functioning, because of the difficulties and deficiencies in these social skills, which include problems with social communication, peer relationships, and social problem-solving (Olweus, 2014).

The results of analysis showed a significantly negative correlation between social competence and peer victimization ($p = -0.725^{**}$, $p < 0.01$) which suggests that challenges with social skills increase the vulnerability of peer victimization leading to increase in levels of anxiety ($p = 0.534^{**}$, $p < 0.01$). Furthermore, the negative correlation between social competence and anxiety ($p = -0.515^{**}$, $p < 0.01$) demonstrates that fostering and enhancing social skills may improve overall wellbeing and psychosocial outcomes and specifically lower the anxiety levels.

The evidence-based findings of this research study are consistent with the conceptualization and previous literature stating that social competence, peer victimization and anxiety have interconnected dynamics among the adolescents with autism spectrum disorder. The study highlights the importance and requirement of relevant interventions that may focus on social skills, emotion-regulation techniques. Interpersonal adaption heavily relies on social skills and competency. Cooperation, empathy, and the ability to see things from another person's point of view are skills that promote social adjustment and overall wellbeing. These abilities promote both academic success and the growth of constructive peer relationships

(Hosokawa and Katsura, 2017). However, in addition to emotional and behavioral difficulties, adolescents with low social competence may display maladjusted relationships (Caporaso et al., 2019). The majority of peer victimization occurs in school settings, including classrooms, playgrounds, and school buses, according to research studies. Negative social, emotional, and behavioral outcomes are associated with peer victimization in the school environment (Cooley et al., 2018). A person's experiences at school are influenced by the school environment and their sense of belonging. There is a possibility that adolescents won't disclose instances of peer victimization to their parents, instructors or other school authorities if they don't feel safe or at ease there or if there isn't any social assistance accessible. This leads to feelings of worry, fear, hopelessness, and despair (Eliot et al., 2010).

Research indicates that social competency is associated with social achievement, which includes having good interactions with peers, as well as academic success (Poulou, 2014). It has been revealed that adolescents with greater social competence and ability are more well-liked in their social circle and environment, have superior social communication and conflict resolution skills, are more accepted, and encounter fewer rejections from their peers (Sreckovic et al., 2014). Additionally, adolescents who possess positive social competence have a solid foundation for the growth of meaningful and fruitful interpersonal relationships, which reduces the likelihood of peer-related difficulties as well as general emotional or behavioural problems (Bornstein et al., 2010).

The findings emphasize on the importance of social skills training and support programs, initiatives that may help preventing peer victimization and instill or strengthen coping mechanisms that help against anxiety. moreover, there must be awareness created among parents and educators about how social competence influences peer victimization and anxiety and what psychosocial consequence it has on adolescents with ASD.

5.3 Limitations

Although the current study yielded meaningful and statistically significant results, it is important to acknowledge its limitations. First of all, just a small number of individuals had been recruited, and they were all enrolled in special education

programs excluding any comorbidities. Despite controlling for all external or confounding variables, the results may not be applicable to a broader population. The results may not be generalized to adolescents with ASD who are enrolled in inclusive or mainstream educational programs. This study ensured homogeneity in the sample but it restricted the extent of generalizability of the results.

Adolescents with co-morbid conditions like attention deficit hyperactivity disorder (ADHD) or intellectual impairment (ID) may exhibit various manifestations of variables including social competence, anxiety, and peer victimization. Even though there are significant correlations between the variables—for example, a negative correlation between social competence and peer victimization ($p = -0.725$) and a positive correlation between peer victimization and anxiety ($p = 0.534$) the results might not apply to a broader group of adolescents with ASD with comorbidities.

Peer norms, the classroom setting, instructor assistance, and school climate are examples of contextual elements that could significantly influence peer experiences but were not taken into account in this study. Adolescents with autism who are enrolled in special education programs and exhibit context-specific dynamics were the focus of the research. The understanding of how environmental factors contribute to the psychosocial outcomes for adolescents with ASD could be improved by incorporating more contextual factors.

The lack of self-report data in the current study may limit the comprehensive and in-depth understanding of subjective and internal experiences associated with peer victimization and anxiety. This omission may result in an inadequate evaluation or an incorrect interpretation of the experiences.

The potential gender differences in terms of social competence, peer victimization and anxiety were not considered and assessed. These constructs may have variation in the manifestations across gender which restricts the depth of understanding and interpretation. Gender-specific experiences and how they impact are overlooked.

There may be reporting bias if the only tools used to evaluate the relationship between social competence, peer victimization, and anxiety are parent-reported. Despite the strong internal consistency of all the scales ($\alpha = 0.927$ to $\alpha = 0.967$),

parents may not be able to fully comprehend or describe their child's peer relationships, particularly those that take place in the school setting.

Additionally, there may be no apparent indications of the internal moods, particularly anxiety, which could result in an overestimation or underestimation. Furthermore, parents' perspectives may differ from these subjective experiences and manifestation of anxiety and peer victimization. Peer victimization may not be the only factor influencing anxiety, according to mediation analysis of the direct and indirect effects of social competence on anxiety. The future studies could include self-reports and teacher-reported data to enhance the external validity.

Conclusions about causality cannot be made because the current study was cross-sectional in nature. There may be cyclical linkages suggesting that anxiety influences social competence, even if the mediation study demonstrated the impact of social competence on peer victimization and anxiety. The developmental trajectories across time can be evaluated with the aid of longitudinal study designs.

Despite the fact that this study offers evidence-based information that explains the connections and relationships between the variables of anxiety, peer victimization, and social competence, the previously mentioned constraints emphasize the need of careful interpretation. In order to improve ecological validity, practical implications of findings, and a better understanding of the psychosocial dynamics in adolescents with autism spectrum disorder, these limitations should be addressed in the future while taking into account all contextual and methodological constraints in order to develop culturally relevant and appropriate interventions that are specific to the needs of neurodiverse population specifically the adolescents with ASD.

5.4 Implications

The research study's findings have both practical and fundamental educational significance. The study improves understanding of the unique psychosocial issues that adolescents with ASD encounter by offering evidence-based details about the relationship between social competence, peer victimization and anxiety. The findings demonstrate how peer victimisation influences the link between social competence and anxiety as well as overall emotional and social wellness, underscoring the

need of highlighting these social experiences with peers. Additionally, the findings indicate that peer victimisation is associated with lower social competence, suggesting that inadequacies are linked to a higher risk of peer victimisation, which in turn raises anxiety levels in adolescents with ASD.

The evidence-based findings emphasize the significance of developing inclusive, socially sensitive, empathetic, and psychologically supportive learning environments. These settings may help reduce peer victimization, which is a major factor in elevating anxiety levels, and promote positive peer relationships and interactions as well as acceptance for these adolescents with neurodiverse characteristics. In the long run, this would aid in raising awareness, clearing up misconceptions, and minimizing the stigma attached to autism. Prioritizing inclusive practices and social-emotional development for adolescents with ASD could improve psychosocial adjustment.

The study offered insightful information and paved the way for the development of focused intervention strategies, such as social skills training, to build and preserve social connections and successfully negotiate social settings. Additionally, awareness campaigns, anti-bullying campaigns, and interventions that concentrate on enhancing social skills and lowering the frequency of peer victimization and the ensuing anxiety among adolescents with ASD could be created. Fundamentally, the study highlights the necessity of employing all-encompassing strategies that may address both individual and environmental elements that aid in comprehending adolescents' experiences and promoting social adaptation of these neurodiverse people.

With the ultimate goal of enhancing quality of life, psycho-social adjustment, adaptability, and acceptance, among others, the current study establishes a basis for appropriate and pertinent educational and mental health interventions that fulfil the requirements of the adolescents with ASD. The findings will create awareness among people regarding challenges faced by adolescents with autism since there are misconceptions and non-accepting attitude which leads to stigmatization. Such social exclusion and marginalization by peers, educators and others in the society develops a sense that autistic adolescents are different which makes it even difficult for them to adjust, adapt and fit in. the sense of being different

in autistic adolescents leads to social isolation, withdrawal, reduced interest in developing relationship and ultimately be an obstacle in psycho-social growth.

5.5 Recommendations

Based on the study findings, there are multiple educational and clinical research-based recommendations that are proposed to increase social competence, reduce the incidences of peer victimization and the anxiety among the adolescents with ASD who are already considered a vulnerable population.

- i. It is recommended that systematic and structured social training programs be developed and executed for adolescents with ASD, given the strong negative correlation between social competence and peer victimization, as well as the direct and indirect effects of this relationship. Enhancing the fundamental skills of social competence—such as establishing and maintaining conversations and interactions, comprehending and interpreting social cues and conventions, appreciating the viewpoints of others, controlling emotions, and handling conflict—should be the aim of these programs. To strengthen social competence, the developed interventions could make use of peer-mediated learning, role-playing, and social tales. Enhancing social skills may reduce the risk of being victimized by peers, which would reduce anxiety.
- ii. The results of the study showed a strong positive correlation between anxiety and peer victimization, highlighting the necessity of creating anti-bullying programs in educational settings. In order to lower the prevalence of peer victimization, several anti-bullying programs must be created and implemented. In order to foster and promote acceptance, empathy, and understanding of people with ASD or any other neurodiversity, educators and students should be educated through awareness programs. Peer victimization and social isolation can be decreased by fostering beneficial, inclusive atmosphere for adolescents through teamwork, group activities, and peer-mediated learning.
- iii. Schools must have trained psychologists and counselors who can provide mental health services tailored to the needs of the neurodiverse population,

given the elevated anxiety levels associated with experiences of peer victimization and decreased social competence. To help adolescents with ASD better handle psychological issues, particularly anxiety, there are breathing and relaxation techniques, stress management initiatives, and cognitive-behavioral strategies that can be customized.

- iv. Peer relationships and interactions are shaped by a healthy school environment, which is largely the responsibility of teachers. Teachers need to be educated on the unique difficulties that adolescents with ASD encounter in terms of their social environments and traits. In addition to encouraging empathy and acceptance, structured social interactions should discourage bullying, rejection, and exclusion of any kind. In addition to lowering the experiences of peer victimization and the ensuing anxiety, the controlled and encouraging classroom environment would aid in establishing and improving social competence.
- v. In order to improve and broaden their understanding of the dynamics that exist in the relationship between social competence, peer victimization, and anxiety, parents should receive psycho-education in addition to students and teachers. It is necessary to educate and train parents on how to help their children develop social skills and recognize and comprehend the symptoms of emotional or social distress. Additionally, parents must be able to share their worries with the school in order to address any problems and enhance the results of interventions. When parents and schools collaborate consistently, the interventions are more effective.
- vi. The current study focused on gathering data from a single informant. Furthermore, the external factors were not taken into account. Future research ought to consider about gathering supplementary information, such as self-reports or information from parents or teachers. Additionally, in order to have a thorough grasp of the dynamics and psycho-social functioning of adolescents with ASD, contextual factors should be incorporated. Making customized interviews that are most appropriate and pertinent would be made easier with this thorough understanding.

- vii. The present study used a cross-sectional study design; however longitudinal designs may be used in further research to examine developmental changes over time and evaluate the causal process. To improve generalizability, the researchers might also include adolescents with autism who have comorbidities, employ a bigger sample, and include students who attend mainstream or inclusive schools.
- viii. Specialized and tailored interventions should be implemented, which may involve taking into account the adolescents' psycho-social status and addressing their particular needs. Programs for peer interactions must be developed to improve peer contact, promote acceptance, and lessen associated stigma. Neurotypical peers could participate in various activities with neurodiverse adolescents as part of these programs to foster cooperation and strengthen the bonds.
- ix. In order to increase their acceptance in society, promote empathy and inclusion, cooperation, and lessen the stigma associated with autism, it is necessary to hold awareness programs beyond schools. These programs may involve parents, educators, and psychologists and raise awareness of the fundamental features and characteristics of autism as well as the difficulties that these individuals face. This will help to reduce peer victimization and the psychological issues that are linked to it.
- x. To ensure that adolescents with ASD receive continuous and appropriate care, educational staff, including teachers, must work in coordination with mental health service providers. This interdisciplinary team might assist in creating comprehensive interventions that could promote spontaneity, offer assistance with emotional and social challenges encountered, and stop further damage.
- xi. To reduce long-term psychological, social, and emotional distress, early screening for social and emotional difficulties particularly those with social competence and anxiety should be conducted in order to guard against the onset

and consequences of peer victimization. Since adolescence is seen as a crucial stage of life development, this action can help lessen the vulnerability to peer victimization at this stage in life.

In summary, the findings of this study highlight the need for a thorough understanding and all-encompassing interventions that concentrate on improving social competence, preventing peer victimization, and lowering or easing anxiety symptoms in adolescents with autism spectrum disorder. The development of social skills training, school-based anti-bullying programs, pertinent and suitable psychological and emotional health support and services, and awareness-raising programs should all be the focus of organized programs. Additionally, it is important to create and preserve an inclusive and psychologically supportive learning environment in the classroom, as this can promote empathy, acceptance, collaboration, and positive peer connections for adolescents with autism spectrum condition.

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Appendix A-Data Collection Form



Capital University of Science & Technology
Your Journey Awaits

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Ref. CUST/IBD/PSY/Thesis-1844
January 22, 2026

SUBJECT: REQUEST FOR DATA COLLECTION

Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.

Ms. Maryam Nawaz, registration number MSP241002 is a bona fide student in MS Psychology program at this University from Spring-2024 till date. In partial fulfillment of the degree, she is conducting research on "Relationship between peer victimization, social competence, and anxiety in adolescents with Autism Spectrum Disorder (ASD)". In this continuation, the student is required to collect data from your institute.

Considering the forgoing, kindly allow the student to collect the requisite data from your institute. Your cooperation in this regard will be highly appreciated.

Please feel free to contact undersigned if you have any query in this regard.

Best Wishes,

Dr. Sabahat Haqqani
Head, Department of Psychology
Ph No. 111-555-666 Ext: 178
sabahat.haqqani@cust.edu.pk

Appendix B-Ethics Review Form



Capital University of Science & Technology
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Ref: CUST/FMSS/REC/2025-80

January 22, 2026

RESEARCH ETHICS COMMITTEE CERTIFICATE OF REVIEW AND SUPPORT

This is to certify that Project titled: *“Relationship between peer victimization, social competence, and anxiety in adolescents with Autism Spectrum Disorder (ASD)”* submitted by Scholar: *Maryam Nawaz MSP241002* and supervised by *Dr. Ishrat Yousaf* reviewed by the Research Ethics Committee of Faculty of Management and Social Science, meets the requirements of the American Psychological Association’s Ethical guidelines for Human Research and is **REVIEWED** and **APPROVED** by Research Ethics Committee of Faculty of Management and Social Sciences.

It is the Scholar’s responsibility to ensure that all researchers associated with this project are aware of the conditions of approval and which documents have been approved.

The Scholar is required to notify the Research Ethics Committee in case of any amendment in the project, specifically:

- Any significant change to the project and the reason for that change, including an indication of ethical implications (if any)
- Serious adverse effects on participants and the actions taken to address those effects
- Any other unforeseen events or unexpected developments that merit notification
- The inability of the Principal Investigator to continue in that role, or any other change in research personnel involved in the project
- A delay of more than 12 months in the commencement of the project; and,
- Termination or closure of the project.

Dr. Sabahat Haqqani

Convener, Research Ethics Committee
Faculty of Management and Social Sciences
Capital University of Science and Technology
Islamabad

Appendix C-Demographic Information Sheet

معلومات فارم

براہ کرم اپنے بچے کے بارے میں درج ذیل معلومات فراہم کریں۔ تمام جوابات رازدانه رکھے جائیں گے

بچے کی عمر:	_____ سال
بچے کا جنس:	• لڑکا • لڑکی
تعلیمی ماحول:	• مین اسٹریم (Mainstream) • انکلو سیو (Inclusive) • اسپیشل ایجوکیشن (special education)
کیا آئزم کے علاوہ آپ کے بچے کی صحت سے متعلق نشاندہی کی گئی ہے؟	• ذہنی معذوری (Intellectual Disability) • توجہ کی کمی (ADHD) • کوئی نہیں

Appendix D-Consent Form

والدین کی رضامندی کا فارم

میر انام مریم نواز ہے۔ میں ایم ایس نفسیات کی طالبہ ہوں اور کمیونٹی یونیورسٹی آف سائنس اینڈ ٹیکنالوجی (CUST)، اسلام آباد میں زیر تعلیم ہوں۔ میں یہ تحقیقی مطالعہ اپنی ماسٹرز کی ڈگری کی تکمیل کے لیے کر رہی ہوں۔ اس تحقیق کا مقصد آٹزم (Autism) کے بچوں میں ہم عمروں (Peers) کے ساتھ تعلقات اور ان تعلقات کے بچوں کی نفسیاتی و سماجی نشوونما پر پڑنے والے اثرات کا جائزہ لینا ہے۔

اس تحقیق کے دوران آپ کو ایک سوالنامہ فراہم کیا جائے گا، جس میں آپ کے بچے سے متعلق کچھ ذاتی معلومات اور روزمرہ روٹیوں کے بارے میں سوالات شامل ہوں گے۔ اس سوالنامے کو مکمل کرنے میں تقریباً 15 سے 20 منٹ درکار ہوں گے۔ اس تحقیق میں حصہ لینے سے آپ کو کوئی ذاتی فائدہ حاصل نہیں ہوگا، تاہم آپ کی فراہم کردہ معلومات آٹزم کے شکار بچوں اور ان کی دیکھ بھال اور علاج سے وابستہ اداروں کی رہنمائی میں مددگار ثابت ہوں گی۔ اس تحقیق میں آپ کی شمولیت رضاکارانہ ہے۔ آپ کسی بھی وقت تحقیق سے دستبردار ہو سکتے ہیں، اس سے آپ کو کوئی نقصان نہیں ہوگا۔

اگر تحقیق کے دوران آپ کو کسی بھی قسم کی ذہنی یا جذباتی پریشانی کا سامنا ہو، یا آپ کو کسی مدد کی ضرورت محسوس ہو، تو آپ ہم سے رابطہ کر سکتے ہیں یا ای میل کے ذریعے آگاہ کر سکتے ہیں۔

اجازت نامہ

میں نے یہ فارم پڑھ لیا ہے اور اسے سمجھ لیا ہے، اور میں اس تحقیق میں شرکت پر رضامند ہوں۔

دستخط:

تاریخ:

رابطے کی معلومات

مریم نواز

MSP241002@cust.pk

کمیونٹی یونیورسٹی آف سائنس اینڈ ٹیکنالوجی

Appendix E-Schwartz Peer Victimization Scale

والدین کے لیے سوالنامہ۔

میں آپ کو کچھ بات پڑھ کر سنوں گی جو آپ کے بچے کی دشمنات کر سکتے ہیں۔ براہ کرم مجھے بتائیں کہ ہر بیان آپ کے بچے کی کس حد تک دشمنات کرتا ہے

میرے بچے کے ساتھ یہ کبھی نہیں ہوتا میرے بچے کے ساتھ یہ تقریباً کبھی نہیں ہوتا	میرے بچے کے ساتھ یہ سال میں ایک مرتبہ ہوتا ہے	میرے بچے کے ساتھ یہ سال میں دو یا تین مرتبہ ہوتا ہے	میرے بچے کے ساتھ یہ چار سے چھ مرتبہ ہوتا ہے	میرے بچے کے ساتھ یہ ہفتے میں ایک یا دو مرتبہ ہوتا ہے	میرے بچے کے ساتھ یہ ہفتے میں ایک یا دو مرتبہ ہوتا ہے۔	میرے بچے کے ساتھ یہ تقریباً ہر روز ہوتا ہے
1	2	3	4	5	6	7

نمبر	بیانات	1	2	3	4	5	6	7
1	دوسرے بچے آپ کے بچے کو کتنی بار چراتے ہیں یا اس کا مذاق اڑاتے ہیں؟							
2	دوسرے بچے کتنی دفعہ آپ کے بچے / بچی کو چھیڑتے یا دھمکاتے ہیں؟							
3	دوسرے بچے کتنی دفعہ آپ کے بچے / بچی کو مارتے یا دھکا دیتے ہیں؟							
4	دوسرے بچے کتنی دفعہ آپ کے بچے / بچی کے بارے میں غلط باتیں کرتے ہیں یا اسے برا بھلا کہتے ہیں؟							
5	دوسرے بچے، آپ کے بچے / بچی کو ساتھ شامل نہ کر کے آپ کے احساسات کو کتنی بار تکلیف پہنچاتے ہیں؟							
6	دوسرے بچے، آپ کے بچے / بچی کو کتنی بار ایسے ناموں سے بلاتے ہیں جو اس کے جذبات / احساسات کو تکلیف پہنچاتے ہیں؟							
7	دوسرے بچے کتنی بار آپ کے بچے / بچی کے رویے کا مذاق اڑاتے ہیں؟							
8	دوسرے بچے آپ کے بچے / بچی کو کتنی بار مکالمات مارتے ہیں؟							
9	دوسرے بچے، آپ کے بچے / بچی کی خیر موجودگی میں کتنی دفعہ اس کے بارے میں غلط باتیں کرتے ہیں یا اسے برا بھلا کہتے ہیں							
10	جب آپ کا بچہ / بچی دوسرے بچوں کے ساتھ وقت گزارنے کی کوشش کرتا / کرتی ہے تو اسے کتنی بار چڑایا جاتا ہے یا اس کا مذاق اڑایا جاتا ہے؟							

Appendix F-Social Competence Scale

سوالنامہ نمبر 2

میں آپ کو چند جملے پڑھ کر سناؤں گی جو آپ کے بچے کے بارے میں ہو سکتے ہیں۔ براہ کرم بتائیں کہ ہر جملہ آپ کے بچے کی کتنی درست عکاسی کرتا ہے۔

بہت اچھی طرح	اچھی طرح	درمیانی حد تک	تھوڑا سا	بالکل نہیں	
					1 میرا بچہ اس بات کو قبول کر لیتا / لیتی ہے جب چیزیں اس کی مرضی کے مطابق نہ ہوں۔
					2 میرا بچہ ناکامی کی صورت میں خود کو سنبھال لیتا / لیتی ہے
					3 میرا بچہ کوئی کام کرنے سے پہلے سوچتا / سوچتی ہے۔
					4 میرا بچہ دوستوں یا بہن بھائیوں کے ساتھ ہونے والے مسائل خود حل کرنے کی کوشش کرتا / کرتی ہے
					5 میرا بچہ زیادہ پر جوش یا بے قابو ہونے پر خود کو پرسکون کر لیتا / لیتی ہے۔
					6 میرا بچہ وہ کام کرتا / کرتی ہے جو اسے کہا جاتا ہے۔
					7 میرا بچہ دوسروں کے جذبات کو اچھی طرح سمجھ لیتا / لیتی ہے
					8 اختلاف کی صورت میں میرا بچہ اپنے حصے پر قابو رکھتا / رکھتی ہے
					9 میرا بچہ دوسروں کے ساتھ اپنی چیزیں بانٹ لیتا / لیتی ہے۔
					10 میرا بچہ دوسروں کی مدد کرنے کا رجحان رکھتا / رکھتی ہے
					11 میرا بچہ دوسروں کی بات اور رائے کو توجہ سے سنتا / سنتی ہے
					12 میرا بچہ اپنی رائے اور تجاویز بغیر حکم چلائے بغیر پیش کرتا / کرتی ہے

Appendix G-Anxiety Scale for Children with Autism Spectrum Disorder.

سوالنامہ نمبر 3

برہم یاتی اپنے بہترین انداز میں وہ جواب دینا چاہیں جو یہ ظاہر کرتا ہے کہ کتنی مریض آپ کے بچے کے ساتھ یہ واقعات پیش آئے ہیں۔

بیش	بعض اوقات	اکثر	کبھی نہیں		
				میرا بچہ / بچی اچانک خوف یا ڈر محسوس کرتا / کرتی ہے، جبکہ ڈرنے کی کوئی وجہ نہیں ہوتی۔	1
				میرا بچہ / بچی اس بات کی فکر کرتا / کرتی ہے کہ دوسرے لوگ اس کے بارے میں کیا سوچتے ہیں، مثلاً کہ وہ مختلف یا الگ ہے۔	2
				میرے بچے / بچی کا دل اچانک تیزی سے دھڑکنے شروع کر دیتا ہے۔	3
				میرا بچہ / بچی امتحان دینے وقت خوف یا گھبراہٹ محسوس کرتا / کرتی ہے، خاص طور پر جب اسے سوالات سمجھ نہ آ رہے ہوں۔	4
				میرا بچہ / بچی پریشان ہوتا / ہوتی ہے کہ لوگ بھیڑ یا پرجھوم ہاجول میں اس سے نکل آئیں گے یا اسے چھوئیں گے۔	5
				میرا بچہ / بچی بھیڑ / پرجھوم / مصروف جگہوں (جیسے شاپنگ مال، فلم / سینما گھر، کھیل کا میدان) میں رہنے سے ڈرتا / ڈرتی ہے اگر وہ اپنے گھر والوں سے دور ہو جائے۔	6
				میرا بچہ / بچی اسکول کے کام میں بڑی کارکردگی دکھانے سے ڈرتا / ڈرتی ہے۔	7
				میرا بچہ / بچی اچانک گھبرا جاتا / جاتی ہے جب اسے محسوس ہوتا ہے کہ وہ سانس نہیں لے سکتا / سکتی جبکہ اس کی کوئی وجہ نہ ہو۔	8
				میرا بچہ / بچی نئی چیزوں، نئے لوگوں اور نئی جگہوں سے ڈرتا / ڈرتی ہے۔	9
				میرا بچہ / بچی لوگوں سے بھرے یا پرجھوم کمرے میں داخل ہونے سے ڈرتا / ڈرتی ہے۔	10
				میرا بچہ / بچی رات کو سوتے وقت پریشان ہوتا / ہوتی ہے کیونکہ وہ اپنے والدین یا گھر والوں سے دور رہنا پسند نہیں کرتا / کرتی۔	11
				جب میرے بچے / بچی کو کوئی مسئلہ ہو تو وہ رزنا یا کاپنا شروع کر دیتا / دیتی ہے۔	12
				میرا بچہ / بچی بغیر کسی وجہ کے اچانک گھبرا جاتا / جاتی ہے۔	13
				غیر یقینی احساس میرے بچے / بچی کو بہت ساری سرگرمیوں سے روکتا ہے۔	14
				میرا بچہ / بچی پریشان ہو جاتا / جاتی ہے جب یہ سوچتا / سوچتی ہے کہ اگر اس نے کوئی کام بڑے طریقے سے کیا ہو اور لوگ اس کے بارے میں منفی اندازہ لگائیں۔	15
				میرے بچے / بچی کو ہمیشہ کسی بھی واقعے سے پہلے تیار ہونے کی ضرورت ہوتی ہے۔	16
				میرا بچہ / بچی خوف یا ڈر محسوس کرتا / کرتی ہے کہ وہ لوگوں کے سامنے اپنے آپ کو بے وقوف بنائے گا / گی	17
				میرا بچہ / بچی مجھ سے دور ہونے سے پریشان رہتا / رہتی ہے۔	18
				میرا بچہ / بچی اس بات سے پریشان رہتا / رہتی ہے کہ میرے خاندان میں کسی کے ساتھ کچھ ناگوار ہو جائے گا۔	19
				میرے بچے کو گھر سے دور رہنے میں خوف محسوس ہوتا ہے کیونکہ اس کے والدین اس کے سونے کے معمول سے واقف ہیں۔	20
				میرا بچہ / بچی کچھ جگہوں پر رہنے سے گھبرا اتا / گھبراتی یا پریشان ہوتا / ہوتی ہے کیونکہ ایسی جگہیں بہت شور و ملی، بہت روشن یا بہت پرجھوم ہو سکتی ہیں۔	21
				میرا بچہ / بچی اچانک یا اوجہ ہوش / چکر اچاتا / جاتی ہے۔	22
				میرا بچہ / بچی پریشان ہو جاتا / جاتی ہے اگر اسے نہیں پتا کہ آگے کیا ہو گا، جیسے اگر کوئی منصوبہ بدل جائے۔	23
				میرا بچہ / بچی اس بات سے پریشان ہو جاتا / جاتی ہے کہ اس کے ساتھ کچھ برا ہو جائے گا۔	24